The Cavendish Lecture

ON A

SPEEDY AND SOMETIMES SUCCESSFUL METHOD OF TREATING HAY FEVER.

Delivered before the West London Medico-Chirurgical Society,

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MR. PRESIDENT AND GENTLEMEN,—It has been sometimes said by way of reproach that the scientific workers in medicine, although eager in the pursuit of knowledge for its own sake, were careless of its practical applications to the treatment of disease. If at any time this reproach was a just one I do not know, but beyond all manner of doubt it would not be a just one now, for in almost all countries, and in nearly every school in every country, you can see, not only the earnest pursuit of knowledge, but the most zealous efforts to force it into fruit for the uses of men, and in the study of no subject could you find a better proof of this than in the study of hay fever, of which I am about to speak. From Blackley of Manchester to Mackenzie of Baltimore you will find a succession of inquirers whose efforts to discover the nature of this malady have been accompanied by efforts equally earnest and persevering to discover its most appropriate treatment; and from America, the most earnest and persevering of all countries at work, we have received the largest and best fruits of this double pursuit. To-night the plan of treatment of hay fever which I shall have the privilege of submitting to your consideration is entirely founded upon a physiological study of the disease. It is, however, with the results of this study only in so far as they bear broadly and directly upon treatment that I propose to occupy myself. With minute discussions as to the nature of hay fever, its physiological and pathological relations, and the causal agencies engaged in its evolution, I shall have to-night only an indirect concern. Nevertheless, as I wish to set forth the true grounds for a rational treatment of this malady, such discussions cannot be passed over entirely.

Before proceeding further I wish to pause for a moment and advert to the name by which this malady is known. From nothing has medicine suffered more than from hypothetical naming. What may seem to be the correct and adequate hypothesis of to-day may become the incorrect and inadequate hypothesis of to-morrow; and when the true nature of a malady is discovered, the diffusion of the discovery is hindered, if not prevented, by the retention of a name which, established by custom and continued from convenience, conceals the truth and perpetuates error. I could advance few better illustrations of this than the naming of the disease under consideration. The epithets of "hay fever," "hay asthma," "pollen fever," "rose cold," and "peach cold" are widely open to this objection. They withdraw the attention from internal states, and they tend to narrow our ideas of causality within the limits of outward things. It is true that the pollen of certain grasses is the most common exciting agent of the paroxysm of hay fever, but it is also true—for it has been demonstrably proved—that the paroxysm can be excited not only by other external agents, such as light and heat and dust, but also by local affections of the nose and throat, by irritations propagated from distant parts, and by influences degenerated *de novo* in some part of the central nervous system. It is only of late, and through researches made for the most part in America, that we have come to a knowledge of these facts. Even there, however, the tendency to hypothetical naming continues, and the term proposed by Mackenzie of Baltimore, to whom we owe so much of what is best in our recent knowledge of this subject, is not free from grave objections. He calls the disease "periodic vaso-motor coryza," but in this designation there is involved an hypothesis which to-day may be doubted and to-morrow disproved. Nor are the epithets proposed by myself—"periodic specific coryza" and "periodic nervous coryza"—free from just and grave objections. We are thus in need of a proper name for our malady. No one can be rightly framed except out of its commoner physical characteristics, and no one can be safely used unless it shall imply no hypothesis and be capable of remaining always the same, however much our theories of the disease may change.

Of the innumerable persons exposed, in similar if not identical conditions, to the exciting causes of hay fever, only a few are affected with the disease, and of those few there are, strange to say, scarcely any among agricultural labourers and gardeners, who are habitually exposed to the pollen of grasses believed by some authors to be the sole causal agents of the development of the asthmatic paroxysm. It seems therefore only fair to conclude that in the evolution of the malady some other agent than the external exciting cause must be directly concerned. Further investigation proves this conclusion to be correct. From experimental examination we learn the existence of a second factor which resides in the mucous membrane of the nose, mouth, pharynx, and eyes, which mainly concerns the nerves of these parts, and which manifests itself in all their histological constituents by a peculiar irritability of reaction to certain excitants. Furthermore when, in cases exhibiting this peculiar local irritability, we pursue our inquiries into the characters of the constitutional state associated with it, we discover certain *bizarre* symptoms of disorder which belong exclusively to the nervous types of organisation, and which stamp the organism exhibiting them as specifically and pathologically nervous. Lastly, if, pursuing our investigations still further, we institute an analysis of the differentiæ distinguishing the nervous constitution in this disease from the nervous constitution of cognate affections, we are led to the conclusion that they reside for the most part in the respiratory and vaso-motor centres and in the ganglia connecting and connected with both. In this way we discover reasons for believing that there are three great factors concerned in the evolution of hay fever: the nervous constitution, the irritable local state, and the exciting cause. As a general rule, to which there are some remarkable exceptions, all these factors, although in varying degrees, co-operate in the development of an attack of hay fever. Concerning each of them I have to offer a few observations which will make plain the ground upon which a rational treatment of this malady can be based.

The nervous constitution associated with hay fever is sometimes inherited and sometimes acquired. For the most part inheritance comes from the arthritic and the nervous. When acquired, it is acquired most easily by those who lead laborious sedentary and intellectual lives, as well as by those who, avoiding the difficulties and discipline of life, seek luxury with ease, by those who prefer excitement to duty, and by those who become weak through failure to exercise their strength. And when once hay fever appears, it exhibits still further the closeness of its relationships to the nervous system by choosing the man before the woman, the educated before the ignorant, the gentle before the rude, the courtier before the clown. Some of the more general affinities of hay fever are harder to be understood. It prefers the temperate to the torrid zone; it seeks the city before the country, and out of every climate which it visits it chooses for its subjects the Anglo-Saxon, or at least English-speaking race.

And now, concerning the second factor in the evolution of hay fever, the condition of the mucous membrane of the nasal cavities and parts adjacent, we have divers and some diverse views. All observers are agreed that there is some pathological condition of the affected parts, but no two of them are agreed as to its exact nature. For my own part, I conclude from the investigations which I have pursued into the matter that there is one fundamental condition which reconciles all these varied and sometimes opposing views. This condition is one of irritability, and the irritability is of a sort which involves the nervous vascular lymphatic and cellular constituents of the affected parts, and when excited disturbs the chemical morphological and secretory changes taking place therein. When this local irritability is provoked into action there arise a series of local structural changes which are all but characteristic of the paroxysm of hay

fever. The erectile tissue becomes distended, the bloodvessels are gorged with blood, groups of lymph cells fill the lymphatic spaces, the mucosa is crowded with migrating leucocytes, younger epithelial cells are vacuolating and proliferating, secretion is increased in quantity and altered in character and composition, sensation is sharpened, altered, or benumbed, and the whole metabolism of the affected region is profoundly disordered. These local changes are always present in the paroxysm of hay fever, and whenever they concur and co-operate it may be safely said that hay fever is present. When this local irritability exists in an extreme degree, almost any exciting agent—an odour or vapour, dust, a touch, light, or heat—will quickly call forth the whole series of structural changes already described as almost exclusively characteristic of the paroxysm of hay fever.

And now let me speak shortly of the third factor engaged in the evolution of this malady—that is, of the external exciting or determining causes to which it is commonly ascribed. Authors in general, from Gordon in 1829 to Mackenzie in 1885, advocated the view that the paroxysm of hay fever is due in persons of a certain idiosyncrasy exclusively to the action of the pollen of grasses or of flowers upon the mucous membrane of the nasal cavities and adjacent parts. In support of this view, it is contended that the disease occurs only during the season when certain grasses and flowers are in blossom, that it may be artificially induced by the application of pollen to the nasal mucous membrane, and that it may be prevented from occurring, or may be cured when present, by dwelling on board ship at sea, where no pollen is to be found. Now, whilst it must be admitted that these contentions are in some degree just, and that the most common exciting cause of the hay fever lies in the action of the pollen of certain plants upon the nasal mucous membrane, it cannot be denied that they require qualification, and that they are inadequate to a complete explanation of all the facts which make up the history of this disease. For on this side it may be contended as proved that the malady is less common among agricultural labourers and gardeners than among other persons, that sometimes it occurs at other seasons of the year than in the hay season, that it has been induced by local irritants in which pollen did not exist, that it has occasionally arisen in consequence of irritation in a part with which the nose is in sympathy, and that the mere action by itself of pollen upon the nasal mucous membrane is insufficient to provoke a complete paroxysm of hay fever.

For myself, I am compelled by my inquiries to adopt the view that in the evolution of almost every attack of this malady the three factors already mentioned are at work—the nervous constitution, the local irritability, the external exciting cause; and that whilst this last is most commonly a pollen acting more in virtue of its physical characters than of its intimate nature, it may be any other agent capable of calling into action the irritability of the parts concerned in the mucous membrane of the nose. And now, when we consider these facts and theories of hay fever with the view of framing a rational plan of treatment, we find ourselves beset on every side with difficulties. Theoretically, the objects to be achieved by treatment are the soothing and strengthening of the general nervous system, the allaying of local irritability, and the removal of the exciting cause. To remove the exciting cause, or rather, speaking correctly, to remove the susceptible person from it, is to prevent the on-coming of the disease; and if you send him to sea, or to the summit of some Alpine height, you will assuredly succeed. There are, however, many who cannot follow this counsel, and who must remain under the influence of the exciting cause of the malady. What can be done for the patient in such circumstances? We may strive to strengthen by tonics the weak and irritable nervous constitution; and Morell Mackenzie has had some success with valerianate of zinc and assafœtida, whilst Blackley has failed with every drug which he has tried. By common confession, general treatment, although not useful, is never by itself successful.

We are therefore compelled to turn to the study of local treatment as the chief mode of relieving or curing the disease. There are three plans of local treatment. The first plan is to allay the irritability of the nasal mucous membranes. The second plan is to exhaust the irritability of the nasal mucous membrane. The third plan is to remove or to modify, or to destroy by caustic, or by cautery, galvanic or igneous, such portions of the nasal mucous membrane as are found, or believed to be, the seat of the pathogenic irritability. This third and most radical plan of treatment is practised for the most part in America, and in the hands of Daly of Pittsburg, Roe of Rochester, and Mackenzie of Baltimore, it has been followed by lasting and signal success. But as there are not as yet at our disposal materials sufficient to form a critical estimate of the relative value of this form of treatment, as I have myself no personal experience of the practice of it, and as in this imperfect lecture my chief object is to submit to your consideration the plan of treatment designed and practised by myself, I dismiss for the present from further consideration all operative procedures of this radical kind.

The first plan of treatment proposes to prevent or to cure hay fever by allaying the pathogenic irritability of the mucous membrane. This was the object which I endeavoured to achieve when I began my therapeutical experiments in the treatment of this disease. From trials extending over several years no remedies of this sort except aconitina and atropina returned me any results of the smallest value, and the result returned by the use of these alkaloids was so insignificant, and the effects of following it were sometimes so disagreeable, that I abandoned my inquiries in this direction. The introduction of cocaine, however, and its recent employment in the treatment of hay fever, induced me to re-open my experiments in this direction. At first my success was considerable, for three out of five cases were immediately relieved, and the relief was maintained by the frequent renewal of the application of cocaine to the nasal mucous membrane. But when last year my experience of the use of this drug somewhat increased, my success in using it diminished. In one case the application failed and disagreed. In another case it neither disagreed nor failed, but I was quite unable to discover in the patients the grounds of this difference of action. Nevertheless, although it appears to me that the success of cocaine as a local remedy in hay fever has been overrated, although the necessity of frequent application is troublesome, and although its use is not free from inconveniences which might eventually prove something worse, I am of opinion that its success and its comparative freedom from injurious consequences are sufficient to justify with careful watching a longer and larger trial. There are three ways of using cocaine in the local treatment of hay fever: it may be used in the form of a solution, of a spray, or of a nasal bougie. Personally, I prefer to use a solution varying in strength from 5 to 15 per cent., and I apply it to the interior of the nose and the back of the soft palate by means of a large camel-hair pencil attached to an aluminium shank and bent at an appropriate angle. For use in the form of nasal bougies, from a quarter of a grain or more of the hydrochlorate of cocaine is dissolved in a mixture of gelatine and glycerine, and made of different weights and shapes according to the peculiarities of the case on which they are to be employed. For using cocaine in the form of spray, some efficient and ingenious spray producers have been invented. Many of them are furnished with nozzles, so constructed that the spray can be applied directly to almost any part of the nasal and phrayngeal cavities. These spray producers, with weak cocaine solutions, are sometimes very useful in allaying the small but still troublesome irritation which, in the intervals of the hay fever paroxysms, are apt to arise in the eyes and mouth. By the great kindness of Mr. Martindale, to whose pains, intelligence, and accuracy in matters of this kind we are all so much indebted, I am enabled to show all these preparations of cocaine and all the instruments wherewith they are used.

I come now to consider the second plan proposed for the local treatment of hay fever. The object of this plan, which does not exclude constitutional treatment, is to subdue the irritability of the nasal mucous membrane to such an extent that it shall no longer react to special or common irritants, whether pollen or dust, in a pathogenic manner. In the first place the patient is put upon such a regimen as will conduce most to the improvement of his general health. He is instructed to have a simple but liberal dietary, to be extremely moderate in the use of alcoholic stimulants, to have daily exercise, to follow early hours, and to continue, if that be possible, even at the cost of suffering his ordinary occupations. If the patient is very weak, he is instructed to take with meals drachm doses of Easton's syrup with three or more drops of the solution of arsenic hydrochloric. If he is nervous as well as weak I prescribe for him in their full respective doses tartarized iron, ammonium bromide,

tincture of nux vomica, and a solution of arseniate of soda. In some cases I think that I have seen great benefit follow the use, thrice a day, of five grains of sulphate of quinine, dissolved in citric acid and given in effervescence with carbonate of ammonia.

For the strictly local treatment there are required a common laryngeal brush and a carbolic mixture. This mixture is composed of glycerine of carbolic acid one ounce, hydrochlorate of quinine one drachm, and a thousandth part of perchloride of mercury. Heat will be required in order to dissolve the whole of the quinine, for without heat Mr. Martindale informs me that the glycerine of carbolic acid will dissolve only half the quantity prescribed.

Let me now describe the method of procedure to be followed in applying the carbolic acid mixture to the mucous membrane of the nasal cavities. If there is much mucus in the nostrils, cleanse them by means of a douche of warm water containing boroglyceride,[1] in the proportion of an ounce to the pint. Dip the laryngeal brush in the carbolic acid mixture, and see that the brush is full but not overflowing. Place the left hand on the left side of the forehead, and the thumb on the tip of the nose, with the shank of the brush between the thumb and two forefingers of the right hand, and the brush itself directed upwards, push it gently but firmly into one of the nostrils, carry it as high as you can without inflicting injury, move it about so as to bring the mixture in contact with as much as possible of the interior of the upper part of the nostril, and then withdraw it. With another brush filled with the carbolic acid mixture, or with the same brush washed, dried, and replenished, you complete in the manner following the two operations required for each nostril. Having the left hand in the position already described, and the right hand holding the laryngeal brush, with the hair pencil directed forward from the body of the operator, push the brush along the floor of the nostril into the pharynx, and after insuring free contact with the adjacent parts, withdraw it. If during the operation the brush is over-full, some of the carbolic mixture will fall into the throat and excite coughing or some other discomfort. When you have thus finished the treatment of one nostril, and carefully removed any of the carbolic acid mixture which may have been spilt upon the nose or lips, you will proceed to treat the second nostril in exactly the same manner as you have dealt with the first. During the performance of these manœuvres great assistance will be obtained from the left hand of the operator being placed over the left side of the forehead and face of the patient. With this hand the operator can adjust the patient's head to the various movements of the laryngeal brush, and with the same hand placed on the tip of the patient's nose the opening of the patient's nostril can be adjusted to a convenient size and shape. When the local effects of a paroxysm are severe, and have extended to the back part of the soft palate, it will be desirable to introduce through the mouth into the pharynx the laryngeal brush moderately filled with the carbolic acid mixture, and there, by a manœuvre easily acquired and practised, to brush the posterior surface of the soft palate and the adjacent parts. The immediate effects of these manœuvres differ in different persons, and in the same person at different times. In all cases the effects are more or less disagreeable, and last from half an hour to half a day. Sometimes a little blood-stained mucus is discharged from the nose and throat; sometimes there is a slight frontal headache; sometimes there is a trivial cough, and occasionally you will have developed all the local phenomena of a paroxysm of hay fever.

When advising a patient with hay fever to submit to this plan of treatment for its relief, I have found it expedient to warn him beforehand of the disagreeable effects which sometimes follow the application of the carbolic mixture, and to assure him that they are both brief in duration and devoid of danger. When this warning is withheld, some patients will grossly exaggerate their sufferings, ascribe all sorts of injurious consequences to the application, and cover the physician with undeserved reproaches. Sometimes a single application of the carbolic acid mixture is sufficient to prevent for a whole season the return of the hay fever paroxysm, and four times within my own knowledge it has never reappeared. Usually two or three applications are necessary to ensure a full chance of success. The length of the interval between the applications must be determined by the character of the immediate effects. If these are mild, the application may be renewed on alternate days; but if severe, at least three days should elapse between succeeding applications.

Of the measure of success which has followed this treatment of hay fever, now practised over twenty years, I am unable to speak with exactitude. Patients when relieved seldom, and when unrelieved never, return to record their experience, and I have been unable to get at the subsequent histories of more than a third of the number of persons whom I have treated. It is, however, my conviction that of this roughly estimated third whose cases I have been able to follow, a half has been cured for the season, and four persons have been cured "for good." This, you will say justly, is not a success of which to boast. Quite so. But if you will compare the results of this treatment with the results of every other treatment, not excepting the cocaine treatment, which is its closest rival, you will have to confess that, however small the measure of success, it is not one which you can afford to despise. At any rate, a communication of this kind is entitled to your indulgence, inasmuch as it is an honest, although a very humble, endeavour to press pathology into practice, and to take away the reproach which has been cast upon us of ignoring or of repudiating the natural and just alliance which should unite in closest relationships the science with the art of medicine.

[1] Before the introduction of boroglyceride I employed a five-grain solution of chlorate of potash, which was less efficient.

Clinical Lecture
ON
FUNCTIONAL DISEASES OF THE LIVER.

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GENTLEMEN,—We know perhaps less of the functional diseases of the liver than of those of any other structure in the human body of equal importance. The organ is popularly supposed to be very frequently deranged; but, from the changes its secretions undergo before they come beneath our notice, we have no means of proving how far such an opinion is correct.

Many years ago I commenced some inquiries in order to ascertain if any of the secretions afforded a means of testing the manner in which the hepatic functions are performed. For this purpose I first examined the colouring matters of the urine, but was unable to arrive at any definite conclusions, although no doubt in many cases there is a close connexion between the state of the urine and the condition of the liver. Observing the yellow coating which is so frequently present on the tongue in affections of the biliary system, I separated the colouring matter from the saliva in cases of jaundice. The material thus obtained seemed to be a derivative of the bile; but it was only present under certain conditions, and I was forced to abandon the hope that it could be employed as a test for the quantity or quality of the hepatic secretion.

You are aware that a bitter taste in the mouth is occasionally complained of by patients suffering from jaundice, and also sometimes by those who are only what is termed "bilious." I failed in various cases of jaundice to obtain evidence of what has been often surmised—viz., that the bitter taste is the result of the excretion of the biliary salts by the salivary glands. However, an elderly medical man consulted me, whose only complaint was an intensely bitter taste in the mouth. He never had suffered from jaundice, and he believed himself in other respects to be in perfect health. He found the taste increased after taking alcohol in any form, but no treatment he had adopted had relieved him. I received from him a considerable quantity of saliva, and obtained from it the ordinary indications of the presence of biliary salts. On thinking over his case, it seemed to me that if the salivary glands were capable of separating the biliary salts, perhaps some material derived from these might be a normal constituent of their secretion. The

sulphocyanide suggested itself to my mind, and I determined to ascertain, if possible, whether the quantity of this substance varied in different persons, and under what circumstances such variations occurred. The estimation of the sulphocyanide was, however, a matter of no small difficulty, for it is normally present in so minute a quantity that any attempt to isolate it appeared hopeless. You are aware that the addition of a persalt of iron to saliva gives the blood-red colour of sulphocyanide of iron, and it appeared to me that the simplest way would be to compare the depth of the colour thus produced in the salivas of those suffering from disease with that of persons in a state of health. The saliva of each person examined was therefore collected as it flowed from the mouth for about two minutes, and seven drops of a solution of half a drachm of perchloride of iron to one ounce of water were added, and the colour thus obtained was compared with a scale of colours prepared in the following manner:—A quantity of saliva was collected from a number of healthy persons, and the tint produced by the addition of the perchloride of iron was taken as the normal amount; a portion of the same saliva was then evaporated to one-quarter, and another to half, its bulk, and the colours produced in these respectively were assumed to represent four times and twice the normal amount of sulphocyanide; whilst two other portions diluted with water to twice and four times their amount were taken as representing half and a quarter of the normal quantity of the salivary salt. These were then copied in colours by an artist, so that there should be no variation in the tints.

In this way I examined during the course of many years the salivas of numerous persons who consulted me for different maladies, recording also the symptoms of which they complained, and in most cases the results of the treatment adopted. These observations were so numerous (probably many thousands) that I selected for analysis only those in which the amount of the sulphocyanide was much below or much above the normal. I have described these in this lecture as "private cases" whenever I have found it necessary to quote them. In order to check these observations, I requested Dr. Needham, at that time house-physician to this hospital, to examine in the same way the salivas of a number of patients who were under treatment in the wards, and two years afterwards a similar inquiry was carried on by Dr. Bedford Fenwick. The cases thus obtained, numbering between 200 and 300, were analysed together, and I have quoted them as "the earlier hospital cases." Although the conclusions from both of these sets of cases were generally in accordance with each other, there were numerous discrepancies which could not be explained. I therefore commenced a fresh series, in the following manner:—A solution of sulphocyanide of iron was prepared of definite strength, and was graduated by successive dilutions, so that each was only one-quarter of the strength of that above it. These were placed in the small flat bottles used by spectroscopists, each bottle being of equal thickness. I took my own saliva, which agreed in colour with that formerly taken as normal, as the normal standard, and the bottles were labelled + or −, according as they differed from N. Each of the salivas, when examined, was mixed with a definite quantity of the tincture of perchloride of iron, filtered through cotton wool, and being placed in a spectroscopic bottle of equal thickness was carefully compared with the graduated strengths of the sulphocyanide of iron.

In this manner I examined week by week the salivas of 500 patients admitted into my wards, carefully recording the depth of colour at every observation, but not looking at the notes of the cases in the hospital books. After all these persons had been discharged, I compared the state of the saliva of each in every week of his residence with his condition at the time his saliva was obtained. The results of these observations form the facts from which I have drawn most of the conclusions I am now about to lay before you, and I have quoted these as the "later hospital cases."

Before commencing our inquiries it is necessary to determine what is the normal amount of sulphocyanide in the saliva of healthy persons. No doubt this must vary considerably according to the circumstances of the individuals examined, but I thought we should obtain the best standard for reference if the observations were conducted upon persons of the same class as our hospital patients. I therefore procured the salivas of forty-three persons, most of the females being hospital nurses and the males either hospital porters or patients suffering from some trifling local malady, such as gonorrhœa. The following table shows the results of this inquiry:—

TABLE I.—*Showing the Colour of the Saliva of 43 Healthy Persons.*

Colour of saliva.	Males	Females.	Totals.	
$-1\frac{1}{2}$	1	0	1	
-1	2	2	4	6
$-\frac{3}{4}$	1	0	1	
$-\frac{1}{2}$	4	5	9	
$-\frac{1}{4}$	2	0	2	
N	13	4	16	31
$+\frac{1}{4}$	1	0	1	
$+\frac{1}{2}$	2	1	3	
$+\frac{3}{4}$	0	0	0	
$+1$	2	0	2	5
$+1\frac{1}{2}$	1	1	2	
$+3$	1	0	1	
Totals...	29	13	42	

You will observe that the largest number of the salivas presented the depth of colour we before took as the normal standard, but that most of the females were half below it, and that thirty-one out of the forty-two were within half below or above that amount, only five being above and six below. It will be necessary that this should be borne in mind when we afterwards discuss the diseases to which persons apparently healthy, but in whose salivas the sulphocyanide varies greatly from the normal point, are especially liable.

In commencing an analysis of the cases in which the amount of the sulphocyanide in the saliva was determined, let me first direct your attention to the patients who were admitted suffering from typhoid fever. Thirteen are recorded in the "later hospital cases," all of whom recovered, and in each, as soon as convalescence was established, there was a sudden rise in the amount of the salivary salt, which either increased or was maintained at about the same strength until the patient was dismissed. This is seen in Table II., in which are placed in the first line the average quantities of the sulphocyanide in each week before and after the commencement of convalescence, and in the second the number of cases from which the averages were obtained. The date of convalescence was in each fixed at the day on which the temperature permanently fell at or below the normal point, and you will observe that in the second week before this period the average amount of the salt was only $+\frac{3}{4}$. But during the febrile condition there is a very scanty secretion of saliva, so that the quantities we were able to obtain were very small, and consequently in a state of great concentration. It is evident, therefore, that the amount of the sulphocyanide daily excreted must have been very minute whilst the fever was going on, but as soon as this began to subside the average rose to $+2$, and remained high until the seventh week after the commencement of convalescence. Let me remind you that the figures in this table are averages, for in some cases the quantity rose to $+4$, and in some instances to seven times the normal amount.

The degree of increase of the salt seems to depend on the length of the febrile stage. In Table III. I have included in the first line all those in whom the fever lasted less than twenty-one days, and in the second those whose febrile stage exceeded three weeks in duration. It would appear from these figures that in cases in which the fever has been of short duration the increase of the salivary salt takes place more slowly, but the duration of the convalescence is longer than in those in which the febrile stage has been more prolonged. It is also worthy of remark that the greatest amount of secretion was reached earlier in the latter than in the former, the maximum being in the third week in the second group, and in the fourth week in the first group. If further investigations should confirm these conclusions, we shall have in the quantity of the sulphocyanide during the first week of convalescence a means of ascertaining the probable length of the period during which the patient is likely to regain his former health and strength. The augmented quantity secreted is not the result of an increased supply of food, for, as you are aware, the patients are confined to a liquid diet for two or three weeks after convalescence has been established. It is also worthy of observation that in Table II. the salt is seen to increase before the fever has quite subsided, so that the

state of the saliva may be of value as an indication that the febrile action is about to terminate.

Let us now ask ourselves what are the changes that occur during the progress of typhoid fever. Every day's observation shows you that there is a rapid loss of flesh and strength; the muscles quickly waste and the fat is absorbed, so that in a case of long duration the patient is reduced almost to the condition of a skeleton. As soon, however, as the fever disappears nature begins to repair the damaged structures, the appetite becomes keen, the digestive organs are stimulated into a state of unusual activity, and the patient day by day increases in weight and strength. What, then, I wish to draw your attention to is the fact that along with this unusual activity of the organs engaged in nutrition we find an excessive quantity of the salivary salt—a fact sufficient to indicate that, instead of its being a mere accidental result of local decomposition, as some have supposed, the sulphocyanide is in some way dependent upon the action of the digestive or assimilating structures. But, in addition to this, Table III. seems to point out that there is probably some relation between the quantity of the sulphocyanide secreted and the degree of activity of these organs, for it will be remarked that in the group in which convalescence was most rapid the amount of the salivary salt was the greatest.

A similar state of the saliva may be occasionally observed when from other causes there is a sudden demand made on the nutritive organs. In some cases of hæmorrhage occurring in persons whose digestive organs are not impaired the salivary salt will be found in increased quantity, at the same time that the loss of blood is being rapidly replaced. Thus a woman, about thirty years of age, was admitted into the hospital in a very exhausted condition. A few days previously, when she appeared to be in perfect health, she had suddenly fainted, and shortly afterwards had vomited a large quantity of blood, the hæmorrhage being repeated twice in the next few hours. There was no return of the bleeding from the stomach, but the general nature of the malady was shown by hæmorrhages being present in the retinæ. Two weeks after the attack the sulphocyanide was +2½, next week +3, and in the successive weeks +3, +2½, and +1½, at which latter date it is noted in the case-books that she had quite regained her strength and colour. One month afterwards she was again attacked in the same manner, and was readmitted in a very blanched condition; the amount of the sulphocyanide was remarked to be +2, and continued at that amount until she regained her colour and left the hospital.

The conclusion that seems fairly to follow from these facts is that an unusual amount of the sulphocyanide presents itself in the saliva whenever the necessities of the system call for an increased activity of the digestive organs; and this is supported by the circumstance that persons who are unusually stout and well fed ordinarily secrete a saliva having an excess of this salt. But you will naturally say, Is there not a necessity for an increased action of the assimilating organs in typhoid from the first moment when the patient is smitten with the fever? Certainly there is; but the nutritive organs are incapable of responding to the demand, for they themselves rapidly waste and lose their functional powers. Thus in four cases that had died of typhoid fever I carefully scraped off the whole of the mucous membrane of the stomach and found that the average weight was only 580 grains, whilst the average weight of the gastric mucous membrane in seventeen males who had died of other diseases was 1035 grains, showing that in this malady the stomach loses nearly half its bulk. Nor is there merely a loss of bulk; there is also an impairment of functional activity, for in seven cases I made an artificial gastric juice with the mucous membrane of the stomach, and found that the average amount of coagulated albumen dissolved was only one grain, whilst the amount ordinarily dissolved by the mucous membrane of the stomachs of persons dying from other disorders was four grains. In two of the typhoid cases the albumen was quite unaffected by the artificial gastric juice, and in one a small quantity only was dissolved. It is therefore probable that in typhoid the general wasting of the body is the result not only of an increased destruction of tissue, but that it also arises from the inability of the digestive organs to supply sufficient nutriment to compensate for the augmented waste; and, as we have already seen, along with the diminished activity of these organs there is a decreased quantity of the sulphocyanide in the saliva. As soon, however, as the blood-making organs are restored to activity the salt reappears in the salivary secretion in an increased amount.

It will be obvious that, if the above conclusions are correct, we should find the quantity of sulphocyanide below the normal whenever the digestive organs are unable to supply nutriment sufficient to meet the requirements of the system. Let us, then, test this by the condition of the saliva in maladies attended with rapid loss of flesh. Perhaps one of the best diseases we can select is pulmonary phthisis. Seventeen cases are recorded in the "later hospital records," of which ten died or were removed from the hospital in a sinking condition, and seven were dismissed much improved. Of those who died, the average amount of sulphocyanide was only −1·27, and in some no colour at all could be produced by the addition of the solution of iron to the saliva, so that in these we may assume the secretion of the salt had ceased. In only two of these was the amount above the normal—in one it was +½, in the other +1°; but in all the others it was much below the ordinary quantity. In eight of them the weight of the body was regularly recorded; in five there was a diminution of weight, and these exhibited an average of −1·15 of the sulphocyanide. You must not, however, suppose that this condition of the saliva is an indication of the existence of tubercular disease; it is only a concomitant of a failure of the general nutrition, for the

TABLE II.—*Showing the number of Cases of Typhoid Fever examined, and the average amount of the Sulphocyanide in each week.*

	Weeks before Convalescence.		Weeks after Convalescence.						
	2nd.	1st.	1	2	3	4	5	6	7
Average amount of sulphocyanide	+½	+2	+2½	+3½	+2½	+3	+3	+2	+2½
Number of cases examined	8	7	10	12	13	10	7	3	1

TABLE III.—*Showing the Differences in the Weekly Quantity of the Sulphocyanide in Typhoid of short and long duration.*

		Weeks after Convalescence.						
		1	2	3	4	5	6	7
Within 21 days of fever	Average amount of sulphocyanide	+1	+2½	+2½	+3	+2½	+2	+2½
	Number of cases	2	3	4	3	4	3	1
Beyond 21 days of fever	Average amount of sulphocyanide	+2·00	+3·02	+3·17	+2·71	+4·08	—	—
	Number of cases	3	3	3	2	1	—	—

average of those who improved in the hospital amounted to +1·; only two exhibited a deficiency of the salt, and all the others showed an amount above the normal. In three there was a weekly gain in weight, and in these the average quantity of the sulphocyanide was above the normal. The above facts are supported by the "earlier hospital cases," from which it appears that the diminution of the salivary salt increases with the duration of the malady. Thus twenty-six cases of phthisis are recorded, of whom 25 per cent. had a deficiency of the sulphocyanide when examined within six months of the beginning of the illness, whilst 58 per cent. of those between the sixth and twelfth months, and no less than 87 per cent. of those above twelve months' duration, presented the same condition.

A similar deficiency of the salivary salts is usually observed in the later stages of malignant diseases. In almost all of those in which the stomach was the seat of cancer the sulphocyanide became deficient at an early period, and remained so until the termination of the case; thus I find eight cases recorded of this disease, and in all the amount was very small or was entirely absent. When other organs were affected by cancer, the period at which the sulphocyanide sank below the normal varied with the rapidity of the growth, the organ involved, and the more or less rapid inroad made upon the general health of the patient. This fact may perhaps prove useful in the diagnosis between cancer and simple ulcer of the stomach. It is rare to find a deficiency of the sulphocyanide in the latter, for the power of digestion usually remains good, and in cases of hæmorrhage, as we have before seen, there is often a sudden increase in the quantity; whereas in cancer the amount early falls below the normal from the loss of digestion with which it is accompanied. But you may ask, Why is there such an early failure in the general nutrition in gastric cancer? In every case that I have examined microscopically changes of an important nature have been found in the mucous membrane of the stomach, although it often appeared normal to the naked eye, and the parts examined were at a distance from the seat of the tumour. The peptic glands were either closely adherent to each other or were in a state of atrophy, and an infusion of the mucous membrane exerted only a slight power of dissolving coagulated albumen. In addition to the structural changes, the patient's strength is sapped by the more or less constant discharge of blood, by frequent vomitings, or by an obstruction to the passage of the food into the intestines.

From the above facts, we are bound, I think, to conclude that whenever an unusual demand is made upon the nutritive organs of the body by the necessities of the system, and the patient gains flesh and strength, the sulphocyanide in the saliva is found to be increased in quantity; but when, on the contrary, a person rapidly wastes from some general disease the amount of the salt is diminished. An increased quantity of the sulphocyanide, therefore, under such conditions, manifests an excess of the income over the expenditure, whilst its diminution points to an excess of the expenditure of the system over its income.

We before found that when, as in convalescence after typhoid fever, an increased activity in the cell growth of the whole body took place, there was an unusual amount of the sulphocyanide in the saliva, and we attempted to explain this by supposing that the necessity for repairing the previous waste of the tissues stimulated the blood-forming organs into increased activity, the augmented amount of the salivary salt being only an indication of their increased action. But if there is a relation between the necessities of the system and the activity of the blood-making organs, we should expect that an increased local cell growth would act in the same way as when it is general, and would stimulate the functional activity of the nutritive organs, and that consequently, under such circumstances, the amount of the sulphocyanide would be also augmented. Let us, then, test the truth of this anticipation by the examination of the saliva in persons who were suffering from increased local cell growth—in other words, from malignant or inflammatory affections.

We have already seen that in most of the cases of cancer the salivary salt has been below the normal, but in these the local malady had made great inroads upon the general health. Where, however, either from the position of the tumour or the slowness of its growth, there was no marked cachexia, the sulphocyanide was above the normal. Thus, in a case of sarcomatous tumour of the ribs the amounts registered each week were +2¾, +3¼, +2¾, +3½, +3¼, and the patient left the hospital with no loss of weight or strength, although the size of the mass had greatly increased. I have met with the same circumstance in some cases of cancer of the liver, where the disease was in an early stage, and where the growth was rapid, although there was in some of these also jaundice, probably resulting from compression of the smaller bile-ducts. In the earlier stages of phthisis there is usually an increase in the salivary salt, and it is not until the patient has been reduced by diarrhœa, vomiting, or loss of appetite that the diminution we before observed presents itself.

But you may naturally object that in typhoid the increase of the sulphocyanide was only observed after the cessation of the fever, whilst in cancer and phthisis it takes place during the progress of the disease. This is easily explained when you remember, what was before stated, that in typhoid there is but little digestive power, so that the blood-making functions cannot respond to the demands of the system until after convalescence has set in; whilst in the local maladies we have been just considering the digestive functions appear, in the earlier stages at least, to be intact.

In most cases of acute inflammation there is a rapid local cell growth. What, then, is the state of the saliva under these circumstances? Let us first look at acute pneumonia, of which disease there are nine instances recorded in the "later hospital cases." The average amount of the salivary salt in these was only +·95; they were examined after convalescence had set in, for unfortunately I have no records of the state of the saliva during the acute stage. The smallness of the increase is what might have been anticipated, for everyone must have observed how little flesh the patient loses in an ordinary attack of acute lobar pneumonia, and how rapidly he regains his strength. This is supported by the fact that the more severe the case was, the greater was the amount of sulphocyanide during convalescence. Thus five were dismissed within three weeks, and their average was +·70; four required a longer residence to regain their strength, and their average was +1·27.

Bronchitis, when uncomplicated with heart and kidney disease, seems to have no effect on the production of the salivary salt, for in seven cases which were examined from week to week the average did not exceed the normal.

In acute pleurisy there is a considerable cell growth, and consequently we find a marked difference in the amount of the sulphocyanide from that in bronchitis. There were thirteen observed in the "later hospital cases," four of which presented only the physical signs of "dry pleurisy"; in seven there was exudation of fluid, and most of these were treated by aspiration. In the cases of dry pleurisy the average of the salivary salt was +1·09; in those accompanied by effusion it reached +1·45. A similar result is afforded by the "earlier hospital cases"; for of nine cases, four were examined within one week of the commencement of the illness, and three of them presented an excess of the sulphocyanide, while in one it was normal; three were examined between the second and third week, of whom two had an excess and one was subnormal; after the third week two were examined, and both were below the normal. It is therefore evident that the amount of the salivary salt is greatest where there is most local cell growth, and it often falls below the normal in the stage of absorption. There were two cases of empyema in the "later hospital cases," both treated by drainage, and the examinations of their salivas are very interesting. The weekly amount of the salivary salt was in one +2½, in the other +3½; but in each at the twelfth week of the illness it fell suddenly—in the one to −½, in the other to −¼, and in each it remained in amounts varying from −1· to +½ till the termination of the illness.

Observation teaches us that a local cell growth, whether malignant, tubercular, or merely inflammatory, will often continue for a length of time without perceptibly reducing the strength of the patient, the undue loss of material being supplied by an increased action of the nutritive organs; but that when a certain point is reached the general health rapidly deteriorates. This point—probably that at which the expenditure exceeds the income of the body—seems to be accurately marked by the sudden diminution in the quantity of the sulphocyanide.

Two cases of "granular kidney" were admitted suffering from uræmic convulsions; both improved under treatment, and the amount of the salivary salt increased in proportion to the improvement. One had, on his admission, +1, which increased to +3, at which figure it still stood on his leaving

the hospital at the end of eight weeks. The second had only $-\frac{1}{4}$ at first, but it had risen to $+2\frac{1}{2}$ on the fifth week of treatment. In another case it was normal on admission and remained so the next week, but ten days afterwards he died with uræmic symptoms, no other observation being recorded in the meanwhile.

In chronic tubular nephritis, there must be a large demand upon the nutritive organs to supply the waste caused by the abundant cell growth and the drain of albumen from the diseased organs. Consequently I have generally found that in the early stage the amount of sulphocyanide was above the normal, and remained so until the patient's strength began to fail. In one case of this kind it was $+1\frac{1}{2}$ on admission, but it rose to $+2\frac{1}{2}$ the next week, and remained high until he left the hospital much improved. Two cases died; in one the quantity was at first normal, but it sank next week to -2, and remained at this point until death; in the other it was at first $+1\frac{1}{2}$, but it had fallen to $-\frac{1}{4}$ on the last observation recorded before his death.

(To be continued.)

REMARKS ON

CEREBRAL ABSCESS DUE TO DISEASE OF THE TEMPORAL BONE, AND ITS TREATMENT.[1]

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IF surgeons were only called upon to deal with cases of abscess of the brain when physicians had determined their locality, our position would, in my opinion, be clear, and our task, as a rule, a light one. For I am one of those who hold that in these days of aseptic surgery those areas of the brain in which inflammatory foci are most commonly met, and which are well known from experience to be wondrously long-suffering, may be as freely dealt with almost as the structures external to the skull. But far more than mere operative treatment of these conditions is demanded of the surgeon now, and he can only be really useful and reliable when he has studied the whole subject of the pathology and clinical symptoms of cerebral abscess with as much care as that of the details of surgical procedure

The mode, however, of approaching this study must be very different to that hitherto adopted before we can hope for much practical result from it. No one who at the present day reads through the abundant literature of cerebral abscess can fail to be struck with the tendency there has been in the past to consider abscess in the brain as one disease, whereas in reality it is only a sequela or accident occurring in the course of a long series of totally distinct ailments. Cases have been grouped together which have no possible affinity, and the result has been much confusion. What possible pathological relation, for instance, is there between an abscess due to commotio cerebri and one the result of septic phlebitis from middle-ear disease? and yet we find in those collections of cases which have hitherto been appealed to for information on the subject results produced by these and other most widely-differing causes grouped together as if they all belonged to the same disease because they affected the same organ. Let me enumerate some of these causes of abscess in the brain produced without external breach of surface to help diagnosis. 1. Bruise of the brain under a spot of the skull which has received a sharp blow, but where the bone is uninjured. 2. The spread of inflammation into the brain along a vein leading from a portion of bone damaged by a blow. 3. Commotio cerebri, the result of contrecoup. 4. Secondary infarcts in general pyæmia. 5. Disease of the lungs. 6. Hepatic inflammation. 7. Caries of the bones of the nose. 8. Disease in the middle ear.

Now, as long as cerebral abscess was considered an inevitably fatal condition, and the only questions involved were the diagnosis of its presence and the prognosis, such a wholesale method of dealing with the subject may have seemed to some sufficient. But now that the brain has been brought within the reach of operative surgery by the perfecting of antiseptic methods much more is demanded, and above all knowledge to enable us to fix the locality of the inflammatory focus. For this knowledge in the case of that class of cerebral abscess to which I shall confine my remarks—namely, that due to disease of the temporal bone—I am afraid we shall have to wait a long time if we rely *solely* upon special clinical symptoms. It appears to me that we are likely to learn far more facts available for localisation and treatment from a careful study of their pathology, macroscopic and microscopic, than from a search after special nerve symptoms. But if this is to be true, one of the most indispensable conditions of our research into their nature must be kept in view—namely, that we shall separate and keep apart those abscesses which depend upon totally different exciting causes and study each for itself according to its own special etiology. Strongly impressed with this idea, I shall confine my remarks to matters relating to one particular form of cerebral abscess which is of relatively frequent occurrence, and for which surgical treatment will probably be most frequently necessary for a long time to come. I refer to abscess depending upon inflammation of the temporal bone. Thus limited, the field is still a large one. I find, by combining Rudolph Meyer's tables with those of Dr. Ogle, that we have 101 cases of abscess of the brain classed as to cause, and 18 unclassed. Of these 101 classed, 29 were due to disease of the temporal bone following upon suppuration in the middle ear. Traumatic causes followed next, with 27 cases; then suppuration in the lungs and liver, with 20 cases. Among the remaining 24 cases pyæmia was credited with 7, the rest being made up in various ways. Now, although I should not like to rely too much upon these statistics, which were compiled twenty years ago, when pathological observation was not so accurate as now, I believe they are sufficiently accurate to enable one to estimate roughly the relative frequency of abscess due to ear disease as contrasted with those from other causes. And I think, from a study of the tables referred to and of other cases as well, that a revision of the question would now lead to ear disease being credited with a still larger relative number of cerebral abscesses than above, and that 30 per cent. of all causes would be below the mark. It would probably be nearer 50 per cent., pyæmia having now become a relatively rare affection, and fractures of the skull, or suspected fractures, being now treated by antiseptic surgeons in such a way as greatly to reduce the number of traumatic abscesses of the brain. At the same time, I question strongly whether a corresponding improvement in the treatment of suppuration in the middle ear has yet taken place generally to largely reduce the mortality from ear disease. It is to this large group, then, and to it alone, that the remarks I have to make refer.

The pathology of encephalic abscesses due to ear disease is not very abstruse. They appear (broadly stated) to be produced in two different ways, of which it is hard to say which is the commonest. In the first place, we find a septic phlebitis extending from the walls of the tympanic cavity into the substance of the brain by a longer or shorter route, and there setting up an inflammatory process in the white substance. Here the dura mater of the petrous bone may show but few signs of disease, and the serous covering of the encephalon be perfectly normal to the naked eye; there may even be a considerable thickness of sound cortical brain tissue between the arachnoid and the cavity of the abscess. The course of the veins along which the inflammation extends is liable to considerable variation. In the case of the brain they usually pass from about the middle of the temporo-sphenoidal lobe either into the superior petrosal sinus or to the dura mater about the roof of the tympanum, or to the petroso-squamosal suture. The abscess in the brain consequently is set up by "a retrograde phlebitis." The next mode of origin is that of simple extension of the inflammation from the middle ear to the dura mater, and from this to the cortex of the brain directly through the medium of a more or less localised septic lepto-meningitis. This last mode of origin is, I think, more often met with in the case of the cerebellum, the last in that of the brain. Both may start from the same form of inflammation in the middle ear, with or without caries of its walls and with or without subdural abscess. It is obvious that the last mode of origin is associated with the gravest local condition. In the first place, septic meningitis has a great tendency to become general; and, next, such an inflammation

[1] Read at the discussion on Cerebral Abscess at the Medico-Chirurgical Society of Glasgow, Feb. 11th, 1887.

can hardly spread backwards towards the cerebellum without involving the lateral sinus and producing more or less septic phlebitis in it, with or without general pyæmic infection. Moreover, subdural abscess may produce grave symptoms.

But though the pathology of encephalic abscess from disease of the temporal bone may be a comparatively simple study in the dead body, in the living the study of the process is fraught with difficulty. For it is plain that the same form of disease in the bone may produce at least five distinct conditions of grave disease. These are (1) general septic meningitis; (2) plastic phlebitis of the sinuses; (3) pyæmia, generally associated with phlebitis of the sinuses; (4) abscess of the cerebellum; and (5) abscess of the cerebrum. Moreover, each of these may be met with not only alone, but grouped together with one or more of the others. Here, then, is the great obstacle to our dealing with abscess in the brain or cerebellum by operation—viz., the difficulty of differentiating them during life. For to operate on an abscess of the brain or cerebellum where general septic meningitis or pyæmia is present would be almost hopeless; and to open an abscess in the cerebellum while another is left untouched in the brain, or *vice versâ*, would not be successful surgery. Again, to leave unrelieved a condition of the temporal bone which has started and is keeping up a phlebitis of the lateral sinus, and may at any time end in general septic infection, while the accidental brain abscess is opened and drained, is not likely to lead to good results. There is a sixth condition which has much in common with those last mentioned, both in pathology and clinical symptoms. This is the simple accumulation of pus in the middle ear, due to blocking of the external meatus by swelling or polypoid granulations. Now, any or all of these six conditions may follow upon the simplest attack of suppurative otitis media. Is it possible to distinguish them clinically one from the other? I think it is to a large extent, to anyone who has studied the pathology of this whole group of affections as a whole, commencing with the initial inflammation of the tympanum, and has closely watched their course in the living. It will not do to know all about intracranial abscess and the varieties of meningitis and neglect the study of the initial affections of the middle ear, which require just as close attention.

For brevity's sake I will now venture to sketch roughly and without argument the method I should pursue in a case where suppuration in the middle ear was followed by grave constitutional disturbance, arousing a suspicion of brain disease. In doing so I shall endeavour to embody in the sketch the rules I have found useful in dealing with a large number of such cases. If called to treat a patient who, having recently had severe pain in the ear for the first time, had begun to suffer from violent headache on that side, drowsiness, rise of temperature and quickening of pulse, with or without rigor and delirium, the surgeon, knowing that the commonest cause for these symptoms is pent-up pus in the middle ear, would at once examine the latter with a speculum and a good light. If the membrana tympani were seen to be bulged outwards by a quantity of opaque white pus, he would incise it from top to bottom behind the malleus and transversely below the latter. If pus ran out freely, the symptoms would probably all shortly disappear. If they did not do so after the tympanic cavity had been freely drained and cleansed, but the headache became worse and the temperature and pulse remained high, while further examination disclosed optic neuritis, and the patient began to have the "cephalic cry" and so-called cervical opisthotonos, acute meningitis would be suspected. If after incision of the membrana tympani and thorough drainage the headache and dulness disappeared, but the temperature kept oscillating between the two extremes without any approach to regularity, while occasional rigors developed, we should suspect and probably soon recognise pyæmia with its secondary manifestations. In neither of these cases would there be any probability at the outset of abscess either in the brain or cerebellum. After such recent, acute attacks, while meningitis and pyæmia are not uncommon, abscess in the encephalon is almost unknown. Subdural abscess and plastic phlebitis are also unlikely to occur in these cases of early acute disease. But if a discharge from the ear had been present for a long time, and had lately ceased with the onset of the above acute symptoms, the most common cause would be blockage of the meatus with polypoid granulations or œdema of the passage. In the first case immediate relief ought to follow removal of the growths. In the second, if marked, or, should the symptoms persist after removal of the polypi, an opening should at once be made into the mastoid antrum, and the middle ear be drained from this until the meatus had been rendered again pervious. This operation ought always to be done in doubtful cases as an aid to diagnosis. It is as simple and devoid of risk as it is useful. Moreover, as a preliminary to graver operations on the brain or cerebellum, it has the great advantage of enabling us to cleanse the foul infecting focus in the middle ear, and to continuously drain it. But though by this drainage of the middle ear we should have eliminated one source of uncertainty, the symptoms might still persist. If so, in a chronic case, we should have to consider the possibility of the presence of encephalic or subdural abscess, or phlebitis of the sinuses, even though meningitis and pyæmia had been already excluded.

Now as to subdural abscess. Is it possible to diagnose its presence in an early stage? I think hardly with certainty, unless by exploratory operation, though there may be good grounds for suspicion from general considerations. In the first place, subdural abscesses are, as a rule, only found in very chronic cases, and in those where matter has been pent up in the temporal bone, not where the discharge has been free. They are usually heralded by a single rigor, with rise of temperature, which does not oscillate much if uncomplicated by pyæmia. The patient will be heavy and dull, only complaining of aching in the temporal region. The pulse will be rapid, unless the abscess be large enough to produce compression, which is not common. It seems probable that this condition may produce optic neuritis, but further observation is required on this point. An examination of the mastoid and squamosal portions of the temporal bone may reveal more or less tenderness and œdema, which will, if present, persist even after free drainage of the middle ear as above. These symptoms all point to an inflammatory focus close by, probably pent-up matter, and, as our preliminary operation has shown that it is not in the middle ear or mastoid antrum, we must look for it under the adjacent dura mater. But at what point is the pus to be looked for? The study of the disease in the post-mortem room teaches us that it will be found either over the roof of the tympanum close to the squamoso-petrosal suture, or on the posterior surface of the petrous bone—i.e., in the groove for the lateral sinus. In some cases it extends from one to the other of these spots. If in the first situation, it is reached by cutting cautiously through the bone layer by layer with a gouge at a point about half an inch above and the same distance behind the centre of the bony meatus of the ear. If in the second position, the collection is found half an inch directly behind the centre of the meatus. With due care the dura mater can be exposed in both situations with very little risk. We cannot be certain of the non-existence of a subdural abscess until both spots have been examined, but the higher operation should be done first, then the lower. The state of the bone, too, in both situations must be very carefully examined as it is cut away. If pus underlie it, it is usually spongy, and the matter will begin to ooze through its pores before the abscess is actually reached, as was found in two of my cases. If no pus be found, and the high temperature and other symptoms persist for many hours after the operation, the case will probably turn out to be one of phlebitis of the sinuses with septic absorption or sapræmia as distinguished from pyæmia or general septic infection, which is almost certain to be accompanied by rigors, a greatly oscillating temperature, and secondary suppurations in distant parts. For this condition little can be done beyond what has been already effected by the exploratory operations—namely, thorough cleansing and drainage of the initial focus of suppuration; but this is a great deal. If actual thrombosis of the lateral sinus and internal jugular have taken place, there may be a flush on the same side of the face and injection of the conjunctiva, together with deep-seated induration over the track of the internal jugular vein. This could be well felt in one of my cases. Optic neuritis may also be well marked in cases of phlebitis of the lateral sinus, as was seen in two cases on which I operated for what I believe to have been this condition. Both patients rapidly improved after operation, and are now well, all traces of the optic neuritis having disappeared.

I have briefly traced these four consequences of middle ear suppuration in the order of their frequency and pathological sequence. It is necessary to be thoroughly familiar with them and the way to eliminate one after the other, before we can hope for anything approaching a safe diagnosis of abscess in the brain or cerebellum.

Turning now to the latter conditions, our first question is: What probability is there of their occurrence? It is quite plain, in the first place, that abscess of the encephalon is far less common than the other affections just described, the symptoms of which so often arouse the suspicion of the presence of the latter condition. I feel sure, from personal observation, that pyæmia, meningitis, phlebitis of the sinuses, and subdural abscess are, broadly stated, ten times more common than abscess of the encephalon. Then, again, the more extensive the destruction of the walls of the tympanum the more likely is the latter to be produced. This is almost as much as to say that the more chronic the bone disease the more likely a brain abscess, but not quite. It is better to say, the more imperfect the drainage from the middle ear in chronic cases the greater the probability. For disease lasting a year or two, in which the meatus has been blocked by granulations or swelling will be far more likely to lead to abscess of the brain than the same amount of disease lasting twenty years where free drainage existed. The history, then, of a case of otitis media purulenta will help us much in estimating the likelihood of the presence of cerebral abscess. Again, it requires far more extensive mischief in the walls of the tympanum to produce a cerebellar abscess than one in the cerebrum. Here, again, the history of the case and an exploratory operation are of the greatest assistance. From an analysis of cases which I have made it appears that abscess of the brain is a much more common sequela of disease of the tympanum than abscess of the cerebellum. I find that out of forty-five cases only twelve of abscess in the cerebellum were found against thirty-three in the cerebrum. This is but a rough calculation, but from personal observation and reading I feel sure it is near the truth. The brain is about three times as liable to abscess as the cerebellum.

Now, what does pathology teach us as to the region of the brain in which these inflammatory foci are found. This, namely, that they are most usual in the middle or posterior part of the temporo-sphenoidal lobe? I think that nine-tenths of them would be found to lie within a circle with a three-quarter inch radius, whose centre lay an inch and a quarter above and the same distance behind the centre of the bony meatus of the ear. This, then, might be described as the dangerous area, and as it fortunately also includes the spot indicated above as most likely to be the seat of subdural abscess, from the same cause an exploration for the latter would be a necessary preliminary to a trephining operation for cerebral abscess. As to the position of abscess in the cerebellum, it is, I believe, always found at the outer and anterior part of the lateral lobe which rests against the petrous bone. If these conclusions be justified, we have much valuable evidence to go upon as operators. We know in the case of the brain where to look for abscess, a point we are not likely to learn from any special symptoms, inasmuch as in collections of ordinary size the affected tissue would be quite outside the motor areas, and would belong to a part of the brain very tolerant of stimulation, and whose functions are still obscure. This last point was well illustrated in the case of cerebral abscess in which I operated. Neither the movements of the silver drain tube within the temporo-sphenoidal lobe nor the injection of the cavity therein with boracic lotion seemed to have any effect upon the patient, even when he was perfectly conscious; nor did the scraping of the cortex during the operation produce any nerve symptoms. But though there may be no special nerve symptoms to guide us, there are other general clinical signs of great value. I need not enumerate these in detail to a society such as that I have the honour to address, but I should like to indicate briefly those which appear to me of special value.

First, there is the feeling of malaise and drowsiness with slow pulse terminating in a sudden great rise of temperature with a single rigor. Next, the gradual fall of temperature to *subnormal*, without perhaps any subsequent rise, the pulse remaining slow and full. There is one point in regard to this subnormal heat, which I noted in my own case, to which I should be glad to specially direct attention, as I do not find it anywhere alluded to. It may or may not prove of value in the future. It is this: the subnormal temperature was most marked in the evening. This is so unlike what we are accustomed to see with pent-up septic matter in other situations where an evening rise is considered characteristic, that it may have some special significance in cases of abscess of the brain. I have noted the same point in other cases.

Another symptom also noted in other cases of cerebral abscess was strongly marked in that under the care of Dr. Gowers and myself. This was *the sluggish but perfect cerebration*. When asked a question, for instance, the patient appeared to take no notice for several seconds, until one thought he could not have heard, or had forgotten that he had been addressed. But presently he would begin to answer slowly and deliberately, but with perfect intelligence. It was the same with his movements. This condition lasted for some days after the opening of the abscess in our case, and we noticed that after considerable improvement had taken place there was a relapse into slow talking, which appeared to coincide with an imperfect drainage of the abscess, the latter having been left undressed for a longer period than usual, and the drain tube being then found outside the skull altogether.

As to optic neuritis, I venture to think we must be cautious in relying on it as a sign of cerebral or cerebellar abscess. It certainly may be present in an intense degree where extensive disease of the middle ear exists without abscess in the brain or cerebellum. For instance, I have seen it in two cases (intense in one of them) in which opening up of the middle ear through the mastoid bone was followed by its rapid disappearance and the complete and permanent recovery of the patients. The condition here was probably phlebitis of the lateral sinus with subdural abscess. But of course, taken with other signs, optic neuritis is a valuable symptom.

Harley-street, W.

RESECTION OF AN IRREDUCIBLE AND GANGRENOUS INTUSSUSCEPTION.

WITH A CONSIDERATION OF THE TWO CHIEF METHODS OF TREATMENT: INFLATION AND ABDOMINAL SECTION.

BY LAWFORD KNAGGS, M.A., B.C. CANTAB., F.R.C.S. ENG.

(*Concluded from page 1126.*)

FROM the facts before mentioned it is impossible to avoid coming to the conclusion that forcible distension of the bowel, whether by air or water, is an operation never entirely devoid of danger; that in very young children it is one of very considerable risk; and that in all cases it should be employed with great judgment and care. But when rupture does occur, to open the abdomen at once is obviously the only hopeful course to pursue. The injury is by no means necessarily situated in gangrenous bowel, and, other things being satisfactory, there is no reason to despair of a successful result. In Mr. Symond's case, to which he has very kindly permitted me to refer, this was done and the rupture sewn up. The child, however, was too exhausted to rally from the operation, but at the necropsy the sutured bowel was able to resist successfully very considerable distension with water. To be of any avail operation should be immediate, and therefore it would be well, whenever possible, to have the necessary requisites at hand, in case inflation should prove disastrous or fail to effect reduction. The desirability of being able to recognise that reduction has taken place after inflation is obvious; for if a doubt exists, and further time is allowed to elapse, the dangers are very materially increased if reduction has not been accomplished.

What are the signs by which we can recognise successful reduction after inflation? To what fallacies are they open? Are they so sufficiently certain as to leave no reasonable doubt as to the result? Mr. Clement Lucas[1] publishing a successful instance, puts them down as follows: 1. The tumour gradually sinks away under the hand and is lost. 2. A gurgle of air is felt and often heard. 3. This is followed by sudden and uniform distension of the abdomen, which becomes tympanitic. But the history of cases shows that a tumour may not infrequently disappear after inflation, whilst its early reappearance proves that its reduction has not been complete. Dr. Goodhart has shown[2] that in consequence of the greatest congestion and swelling taking place at the apex of the invagination—the portion that is the last to be reduced—the final part of the reduction may be the most difficult, or even impossible. This fact no

[1] THE LANCET, Jan. 16th, 1886.
[2] Fagge's Principles and Practice of Medicine, vol. ii., p. 193.

doubt explains some of these cases, the invagination being reduced to so small a size as to escape detection, and the swollen state of the abdomen after inflation adding to the difficulty of the search. Other cases may perhaps be explained by the tumour becoming buried beneath distended intestine. If an invagination has reached the descending colon, it is obvious that the distension that occurs must be at first local, and as reduction goes on the swelling will mark the course of the descending and transverse colon. When the colon is entirely unravelled the swelling will become general, for I believe, and this case supports the view, that considerable distension of the colon is quite sufficient to produce uniform distension of the abdomen. Post-mortem evidence confirms this, for the small intestines may be quite concealed by a distended large bowel. If the intussusception is of the ileo-cæcal variety, or of the large intestine only, the chances are greatly in favour of reduction having occurred when this general distension takes place; but if the small intestine is the seat of the invagination, the disappearance of the tumour will probably only mean that the distended colon is pushed in front of it. The gurgle of air is not, I think, a symptom of great importance. If this reasoning is correct, cases will occur in which these symptoms will present themselves and the invagination still remained unreduced. Such a case is the one I have reported. In a case in which inflation recently proved successful in the hands of Dr. R. W. Brogden of Ipswich, with whom was associated Dr. Carrington, there was "an alteration from distinct hardness and contour to comparative softness and want of definition in the shape of the mass," but doubt existed as to the success of the treatment till it was set at rest by the disappearance of the other symptoms. The experience of other surgeons would, I believe, show that such doubts as to the success or non-success of inflation are by no means rare. When, as in Dr. Brogden's case, they are solved satisfactorily, all is well; but when, on the other hand, lapse of time proves the operation to have been futile, as in mine, what an amount of harm may have resulted, and how largely may the patient's chances have been prejudiced. I conclude, therefore, that cases will occur in which at the time of inflation the operator, if sure of the exact nature of the invagination, may feel certain that reduction has been accomplished. Yet there will be others in which doubt must exist as to the result until the disappearance or continuance of the symptoms, or the reappearance of the tumour, settles the matter.

The *position of the tumour* is a point of considerable importance in considering the probability of inflation proving successful, or in estimating the amount of good that it has effected. If it is in the descending colon, the invagination is almost certain to be one of the large intestine, or of the ileo-cæcal variety, and in the large majority of the instances of the successful employment of inflation or enemata that I have met with the tumour was stated to have been situated on the left side or felt per rectum.[3] If, however, the tumour is on the right side, or near the median line on the right side, there must exist considerable uncertainty as to its variety, and therefore disappearance of the tumour with distension of the abdomen must leave it doubtful whether the tumour has been disinvaginated or only obscured. Before leaving this part of my subject it is well to point out that sudden uniform distension of the abdomen is the most obvious sign that rupture has occurred. The expansion is so immediate and so general, so different from the more gradual uniform distension that takes place so long as the air is within the intestines, that it is impossible to remain in doubt as to the accident that has taken place.

There is no longer any question as to the desirability of opening the abdomen in these cases, but the time when it should be done can hardly be said to be generally agreed upon. In the hope of throwing some light upon this point, I have collected from American and English records thirty-seven cases in which abdominal section has been performed for intussusception. I am indebted for twenty-one of these to a paper by Dr. Sands in the *New York Medical Journal* (1877), and to Mr. Jacobson and Mr. Symonds for permission to include four cases that have not been published. In the first three successful cases the details are somewhat incomplete; but from the age of the patient and the duration of the disease, when stated, it is probable, in the absence of any direct statement to the contrary, that the operation was performed either before or very soon after acute symptoms had appeared. In the next four this is more definitely stated. In two acute symptoms never developed, and in two the operation was performed twelve and eighteen hours respectively after they had set in, whilst in the last a successful result was obtained after four days' acute symptoms, when the pulse had reached 200 in the minute, and when the child appeared so much exhausted that the operator "was doubtful whether much should be attempted for its relief." The moral of these cases is plain. Success is more certain to be obtained if operation is undertaken before acute symptoms set in, or, if they have set in, before many hours have been permitted to elapse. The last case is an eloquent encouragement to persevere when the prospect seems hopeless. (See Table I.)

TABLE I.—*List of Cases of Intussusception successfully treated by Abdominal Section.*

No.	Names of observers.	Sex and age.	Duration of symptoms.	Other points.
1	Velse, 1784	F., 50 years	Not stated	—
2	Fuschius, 1825	M., 68 years	10 days	—
3	Wilson, 1836	M., 20 years	17 days	—
4	Hutchinson, 1873	F., 2 years	1 month	Symptoms never acute.
5	Marsh, 1876	M., 7 months	14 days	Acute symptoms 12 hours before operation.
6	Howse, 1876	F., 33 years	18 days	Acute symptoms not developed.
7	Sands, 1877	F., 6 months	18 hours	Acute symptoms from the first.
8	Godlee, 1883	— 9 months	4 days	Acute from the first.

The duration of the acute symptoms in the list of unsuccessful operations (Table II.) bears a marked contrast to their duration in the successful cases. Where I have been able to state it definitely, they have existed, with one exception, from three to seven days; and, could I have ascertained it in the remaining instances, I believe the contrast would have been greater. But an inquiry into the cause of death is likely to help us as much as a comparison of the duration of acute symptoms. I assume, where I have found no cause of death stated, and where the patient has succumbed within a few hours after the operation, that exhaustion increased by the shock of the operation has been the chief cause of death. In those cases in which peritonitis existed, probably traceable to the operation, it would be but a small factor compared with the other two, and but for them might have been recovered from. Out of twenty-seven cases, no less than twenty-three died within twenty-four hours (twenty within twelve hours) from exhaustion and shock; and two others, though surviving into the second day, might possibly be included under this heading. Two only can fairly be excluded—one in which the child died of purulent peritonitis the result of the operation, and the other where a man survived nine days after an abandoned operation with a ruptured intestine and general peritonitis. If we are to improve our results we must eliminate shock and exhaustion. Where success has been attained, it has usually been when acute symptoms have lasted only a very short time, or before they have set in. Where operation has failed, acute symptoms have been in existence for some time. The exhaustion they produce has been often very marked, and in numerous instances the condition of the involved parts has necessitated either the abandonment of the operation or the performance of a purely palliative one, or the more severe but more scientific undertaking of removal of the damaged intestine. The more acute the symptoms, the more rapidly does exhaustion supervene; the greater the damage inflicted upon the bowel, the worse does the patient's state become.

To open an abdomen under ordinary conditions is not now regarded as an operation of very great gravity. It is done every day for conditions that are trivial compared to this form of intestinal obstruction, and its results become more encouraging with increasing experience. But to allow an intussusception to continue is a matter of most serious moment, and usually fatal. Notwithstanding this, our present attitude, whilst recognising that operation is the only measure that is sure of giving relief, is to wait until nothing seems left to us but operation; to wait until exhaustion is advancing at an increasing pace, and shock is almost certain to prove too great for success; to wait until to a simple abdominal section must be added the absolute necessity

[3] Mr. Hutchinson's list, Med. Chir. Trans., vol. lvii.; Dr. F. Taylor, Clin. Trans., vol. xvi.; recent LANCETS.

of resecting irreducible or gangrenous gut; to wait until we know that the shock will be the greatest possible, and the patient's powers of resistance the least possible. And we do this because we hope that the invagination may go back under simpler treatment, or because we are afraid lest we may by operating take away our patient's last chance. Our position is well summed up in the line—

"Fain would we climb but that we fear to fall."

This waiting policy, this surgery of hope, has so far been a tion was abandoned for a variety of reasons, or in which an artificial anus was established and an irreducible or gangrenous invagination left inside the abdomen, or in which reduction was not completed. In five others (Nos. 13, 14, 25, 26, 29) removal of the whole or a part of the invagination was performed, and it is worthy of note that in not a single instance did success follow this proceeding. I do not wish it to be inferred that this serious measure is one that should on no account be undertaken. When the occasion for it arises, the choice must lie between leaving

TABLE II.—*List of Cases of Intussusception in which Abdominal Section was performed unsuccessfully.*

No.	Names of observers.	Sex and age.	Duration of symptoms.	Time of death after operation.	Cause of death.	Other points.
1	Ohle, 1817	M., 50 years	11 days	12 hours	General peritonitis, with gangrene of invaginated gut	—
2	Gerson, 1838	M., 12 weeks	Not stated	In a few hours	...	Operation abandoned because of ruptured gangrenous intestine, and firm adhesions rendering reduction impossible.
3	Hauf, 1843	M., 36 years	4 or 5 days	9 days	...	Adhesions firm; intestine ruptured; operation abandoned; general peritonitis existing at time of operation.
4	Pirogoff, 1852	M., 16 years	Considerable time	Soon after	...	Invagination found gangrenous; artificial anus established.
5	Wells, 1863	— 4 months	4 days	5 hours	...	Nearly moribund when operation was begun.
6	Laroyenne, 1870	...	...	...	...	Disinvagination could not be effected owing to adhesions.
7	Johnstone, 1873	Infant	...	In a short time	Inflammation	—
8	Weinlicher, 1872	F., 6 months	3 days	6 hours	Acute peritonitis	—
9	Duncan, 1874	— 5 months	...	24 hours	Syncope	—
10	Hutchinson, 1876	— 6 months	4 days	6 hours	Universal peritonitis	—
11	Bell, 1876	M., 16 months	5 days	7 hours	...	Invagination irreducible; artificial anus established above tumour.
12	Brit. Med. Jour., 1876	— 9 months	7 days	A few hours	Collapse	Post-mort.: Peritoneal adhesions; hæmorrhage into mesentery.
13	Morris, 1877	M., 12 years	7 days	18 hours	...	At operation there was peritonitis and escape of fæces from upper end of tumour. The invagination was resected, and the ends of the intestine fastened to the abdominal wall.
14	Howse, 1876	— 5 months	1 month; not acute	A few hours	...	The intestine ruptured under traction; four inches were resected, and the intestine above and below joined.
15	Carrier (Hutchinson, Med.-Chir. Trans., vol. 57, 1874)	M., 23 years	15 days	7 hours	...	Reduction impossible; artificial anus established.
16	Page (Med.-Chir. Trans., 1878)	M., 5 years	Acute 3 days, following chronic 3 months	9½ hours	Exhaustion; commencing peritonitis	Pulseless and collapsed when operated on.
17	Hulke (Clin. Trans., 1879)	F., 16 years	5 days' acute symptoms	36 hours	Exhaustion; peritonitis	Tumour irreducible; artificial anus made above it; peritonitis at operation; condition of patient bad.
18	Godlee (Clin. Trans., 1883)	M., 7 months	3 days' acute symptoms	1½ days	Purulent peritonitis, probably result of operation	—
19	Godlee (Clin. Trans., 1883)	— 14 weeks	Not known	8 hours	Exhaustion; shock	Patient much collapsed at time of operation; part of tumour not reduced, and some sloughing of cæcum had taken place.
20	Warrington Haward (Clin. Trans., 1883)	M., 17 months	5 days' acute	Several hours	Exhaustion; peritonitis	—
21	Davies-Colley (Bryant, Harveian Lectures, 1884)	M., 22 years	5 days' acute	2 days	Exhaustion; early peritonitis	—
23	Symonds, 1884 (not published)	M., 5 months	7 days' acute	9 hours	Exhaustion; shock; commencing peritonitis	Condition of patient before operation bad.
23	Symonds, 1884 (not published)	F., 6 months	10 days	Several hours	...	Patient was the subject of general tuberculosis.
24	Kendal Franks (Brit. Med. Jour., Dec. 6th, 1884)	Man	...	Few hours	...	Part of gut almost gangrenous, and peritoneum had given way in several places.
25	Mayo Robson (Brit. Med. Jour., Oct. 3rd, 1885)	F., 33 years	7 days	2½ hours	Shock	Four feet of gangrenous jejunum resected, and the ends of intestine sewn together.
26	Foxwell (Brit. Med. Jour., June 5th, 1886)	Boy	10 days	...	Exhaustion	Death occurred during the attempt to resect the intussusception, which was gangrenous; purulent peritonitis existed.
27	Jacobson (not published)	— 11 months	24 hours	24 hours	...	Operation abandoned in hope that cure might occur from sloughing; the intussusception irreducible, and too large to be resected.
28	Jacobson, 1886 (not published)	M., 5 months	3 weeks; not acute	At close of operation	...	Child much collapsed at time of operation.
29	Lawford Knaggs	M., 5½ years	4 days' acute	1½ hours	Shock	Resection of irreducible and partially gangrenous intussusception. State of patient good, but after resection completed desperate.

dismal failure. Nor should we forget that in all cases that last chance is far too poor to be relied upon for permanent success, and that in infants it practically does not exist.

To attempt to draw any comparison between the numbers of successful and unsuccessful cases would be manifestly unfair. I have included in the second list no less than nine cases (Nos. 2, 3, 4, 6, 11, 15, 17, 19, 27) in which the operation was abandoned for a variety of reasons, or in which an artificial anus was established and an irreducible or gangrenous invagination left inside the abdomen, or in which reduction was not completed. In five others (Nos. 13, 14, 25, 26, 29) removal of the whole or a part of the invagination was performed, and it is worthy of note that in not a single instance did success follow this proceeding. I do not wish it to be inferred that this serious measure is one that should on no account be undertaken. When the occasion for it arises, the choice must lie between leaving an irreducible and probably gangrenous mass *in situ* and establishing an artificial anus above it on the one hand, or making a clean sweep of the offending parts on the other. In the former case all hope is practically abandoned, and the patient is left to die unless he proves so miraculously fortunate as to survive the shock, to part with the gangrenous mass, and pass safely through dangers attendant upon its

elimination. In the latter the probability is that the patient will die; but we are justified in hoping that he may overcome the difficulties in front of him. What might have been the result in Hauf's case, where the patient survived nine days with peritonitis, had the operation been carried to a conclusion? Here, at least, the shock might have been survived. But it is to be hoped that in the future resection will not often be required to be resorted to in these cases. It will, I believe, be rarely recovered from. If the necessity for it arises, the patient will usually be in a most serious state, and the terrible shock entailed by it will almost certainly prove more than he can stand. But if the importance of immediate operation, inflation failing, becomes generally recognised throughout both branches of our profession, the necessity for it will rarely occur. Just as we must hope to abolish shock and exhaustion as a cause of death by being beforehand with them, so must we hope to eliminate cases of abandoned operation, incomplete operation, and resection, by dealing with all cases before their natural progress compels us to entertain these measures.

It will generally be admitted that in cases of this nature, even when pursuing a more chronic course, an operation of such gravity as abdominal section should not be performed without proper consultation, whether in hospital or private practice; and it is even more desirable in acute cases, where a child in robust health one day is brought within an ace of death's door the next, from causes which are neither apparent to nor understood by its friends, and who will rarely be found to appreciate to the full the perilous condition of the patient. Now consultations are not usually sought until the surgeon in charge has already consumed some time in ineffective treatment, or has himself decided that operation is desirable, and the loss of time that in this way occurs at critical periods of this disease, especially in country practice, adds very materially to the dangers of the case. It cannot be too clearly understood that the successful treatment of intussusception will to a large degree depend upon promptitude in diagnosis and vigorous and immediate action. When once the nature of a case is ascertained, a consultation should immediately be sought, at which inflation should be first employed, and, in the event of this method failing to effect reduction, the abdomen should be opened then and there. If this were adopted as a routine practice, I am persuaded far more cases of intussusception would recover than do now, and this increased success would be contributed to both by inflation and by abdominal section. Lastly, where the diagnosis remains in doubt these are urgent cases for exploratory incision. If the diagnosis halts between intussusception and fæcal accumulation—a not unlikely possibility—it is quite as justifiable to settle the point in this way, when life seems certain to pay the penalty of a mistake, as it is to decide upon the possibility of removal of an abdominal tumour by the same means when the prospect of death is not nearly so imminent. Any operator who finds that he has opened an abdomen for a lump composed of fæces under the impression that it was an intussusception will undoubtedly receive a severe shock, and the fact may be rightly described as a "surgical calamity"; but he is not in such a position as the surgeon who opens the abdomen and finds that he cannot remove a tumour. The former can assist his patient by trying to break down the mass, and the information he has gained may prove of the greatest value to his patient; but the latter can only close the wound—a sadder and a wiser man.

Huddersfield.

A SIMPLE CASE OF PLEURISY: THE INTERPRETATION OF DISEASE.

BY H. CAMERON GILLIES, M.B.

IN the spring of 1884 I used to meet a neighbour, whom I knew well, going to his business. I noticed that he was not looking well; and in reply to my "How do you do?" he generally answered, "Well, I don't feel quite the thing, but there is nothing particularly the matter." Things went on in this way for some weeks; still *nothing particularly the matter*, yet day by day looking worse, losing colour, flesh, elasticity and force, until one morning I was sent for to see Mr. B—— urgently. I went, and found there was now, at any rate, *something particularly the matter*. He was down with some violent disease—that was apparent. It was an extensive pleurisy of one side, attended by all the usual symptoms, with marked prostration and high fever. He got exceedingly low, but was well nursed and recovered well. After a few weeks' holiday he, in his own words, "felt a new man."

This was as simple and ordinary a case of pleurisy as it could be. There was nothing in the symptoms or in the pathological conditions worthy of note. The reason why I record it is that it has been for my mind the starting-point to indulge in certain speculations that have been to myself of no little interest, and perhaps not altogether wanting in practical usefulness. I beg to submit them to the generous consideration of the profession in somewhat the same order as they occurred to me.

What was the patient suffering from? As I stood by that bedside I could not help asking myself: Is that man suffering from pleurisy? Is this pleurisy a specific thing, the roots of which have extended a month or more back into the man's life? Or is this pleurisy a mere accident in the course of the real disease that has told so plainly on the man's frame during the past month or so? Am I to take the local inflammation, the occurrence of the past few hours, to determine my course of treatment against my knowledge of his declining condition for weeks past? Am I to treat the pleurisy and to forget the man? That was the beginning of my curiosity and interest in the matter.

Some short time after that I met another neighbour. He did not feel at all well; if he did not get better he would have, as he said, "to look me up." I was quite sure from his expression, and from what I knew of his assiduous labours, that he would very soon have to "look me up." In a week or two I had a note wishing me to call to see him. I examined him carefully, but could make nothing of him. He had the usual "premonitory symptoms" of acute disease, being feverish, generally upset, and very unwell. He was an intelligent man, and I had no difficulty in explaining to him that I could not give a name to his disease till perhaps the following day. I found him then distinctly set for acute rheumatism.

Initial depression in acute disease.—From these observations I determined ever after to inquire, in all cases of acute disease, whether this initial state of depression held good, and in every case and every form of disease it has. To me it has been most interesting and instructive to hear even powerfully built persons, who may have been taken with acute pleurisy or pneumonia, nephritis, peritonitis, &c., declaring, in their own valuable phrase, "It has been working on me for a long time." Sometimes it is difficult to elicit the fact, but perseverance will in every case find that "I have gone off my food," "I have had no heart in my work lately," "I have been lazy—disposed to lie about," "I have not slept well for some time back," give the indication and the necessary proof. I shall attempt to explain this further on.

A modern writer of ability has declared that nothing is more urgently required in our day than is "the rejuvenescence of the commonplace." Let that be my apology if on this I write some things that everybody knows. There is not anywhere, as far as I know, in our modern medical literature, any positive assertion that this initial state of depression is an *essential* in acute disease; though in almost every one of our better writers we meet with prophecies and indications in this way. Mr. Simon[1] says that "weakness in the sense of readiness to die is the prime cause of local inflammation, and constitutional influence only influences inflammation according as it leads to local weakness." This is the truth; but is it the whole truth? Local "readiness to die" is by this a condition precedent and, I take it, a condition essential to inflammation; and this *may be* produced by constitutional influence. I would ask how otherwise can it be produced? for I consider that here *constitutional influence* means the effect of our environment working by and through the constitution, and not anything in the constitution *per se*. Mr. Simon has given us some of the best chapters in our literature, and it is for me a pleasure to acknowledge indebtedness to him for much that is valuable. His theory of idiopathic inflammation enunciated in the same work, and to which I shall have to refer, is admirable.

Dr. Murchison[2] states that "persons in good health (not apparently so, but strictly so) are little liable to inflammation." Even of cancer he says, "In a large proportion of cases it will be found that the first symptoms of indisposition have been preceded by protracted periods of grief or anxiety,

[1] Holmes' Surgery. [2] Diseases of the Liver.

whether or not the family taint exists." This is going pretty near the truth in a cautious, perhaps doubting way. The observation is a purely clinical generalisation, and as such from such a man it is of much value. My humble opinion is that persons in strictly good health are so little liable to inflammation that—they never have it.

Anstie[3] says: "The general body energy is low when the attack (of neuralgia) occurs." And in his own sterling honest way he elaborates the fact at considerable detail, but he does not anywhere get nearer the general truth—that the fact is as true of every other form of disease as it is of neuralgia.

Erichsen says: "Old age, anything that interferes with the quality of the blood or its supply, anything that enfeebles the heart's action, *predisposes* to inflammation. Thus operation wounds are more prone to inflame after a loss of blood and in patients weakened by fever or want of food." But this, again, is only part of the whole truth. All these conditions, *anything* that produces "weakness in the sense of readiness to die," not only predispose to, but make inflammation absolutely certain in some form or other.

Graily Hewitt,[4] in referring to cellulitis, says: "The diet should be liberal; most patients are weakly and prostrated, *and there is reason to believe that this is an initial condition, and had it not been for the general weakness the patient would not in the majority of cases be afflicted with cellulitis at all.*" The quotation is so apposite that I have italicised it. He sees in his own special sphere what others have observed in theirs. His large experience of cellulitis leads him to a truth that Simon, Murchison, Anstie, and Erichsen had arrived at by studies in other directions. It all points in one way.

But this is not a modern discovery, nor can we say that it has been arrived at by any ingenuity of our better methods. It is the outcome purely and simply of clinical experience and observation. John Hunter was clear upon quite as much. "Weakness," he writes, "is seldom or never an immediate cause of disease, but it often becomes the predisposing cause, many diseases not taking place but when weakness is an attendant, as agues, scrofula, nervous, &c." Hunter was troubled with the definition of *weakness*. He found it applied to so many various conditions that he could not have written more precisely than he has as to its place and value and meaning in disease. Disease was to him an entity, a thing distinct from its predisposition, in every instance *sui generis*. But we can readily believe that if he had Mr. Simon's neat, complete definition of *weakness* as "readiness to die," he would have greatly modified many of his expressions, and his opinions would be found quite up to our modern attainments in this respect.

Abernethy's work on the "Constitutional Origin of Local Diseases" is the high-water mark of rational medicine. His charge, that "the connexion of local disease with the state of the constitution in general is either not sufficiently understood or not duly regarded by this generation of practitioners," holds quite good even in our later and more learned day. Addison says of this work: "It has extraordinary merit and originality. The substance is that local diseases are rather symptoms of a disordered constitution than primary and independent in themselves. This is a beautiful theory, and I am not disposed to deny it a large share of truth." This is very generous criticism, yet it is not sufficient; for, not only is this theory not to be denied a large share of truth, but it must be granted wholly true over the whole ground to which Abernethy applied it. And if our present-day practice and our interpretation of the phenomena of disease are not very wrong, this theory has more of truth in it and a possibility of a wider and fuller application than even Abernethy himself probably foresaw.

John Brown, of Edinburgh, was certainly a remarkable man. Perhaps no "ideas" have been so often and so completely "exploded" as his, yet somehow they turn up from time to time. There was some life in this Brown. He was in effect banished from his native land, yet he made himself quite at home abroad *more Scottico*, and now he is showing himself to some extent after being "exploded" constantly for a century. This is how he puts the matter: "A great criterion by which general diseases may be distinguished from local ones will be found in this single circumstance—that general diseases are always, local diseases never, preceded by predisposition." And he explains: "Predisposition is a middle state between health and disease; *the powers producing it are the same as produce disease.*" That is perfect. Nothing in our modern literature approaches that fine generalisation—that health, malaise (predisposition), disease, and death are in one and the same straight line. We must be clear that he uses *predisposition* in a sense different from that of modern usage. Our present-day teaching puts predisposition among the *causes* of disease, and even our clearest thinkers put it as, at any rate, a condition precedent; but Brown says, "Predisposition to disease and the disease are the same." The initial depression is the disease, says Abernethy, and it is produced by a remoter disorder of the constitution, and the pleurisy is only a symptom of that disease. The initial depression (the predisposition) and the pleurisy are one and the same disease, says Brown, and the cause or causes producing the one produces the other also, and is antecedent to and concurrent with the disease while it exists.

Perhaps the rejuvenescence of so much that may appear commonplace required an apology; but it is necessary for my purpose of endeavouring to show that disease itself, at any rate in its acute idiopathic forms, is a manifestation of the determined laws of the conservation of physical energy. This I will attempt in my next paper on *the Meaning of Initial Depression in Acute Disease.*

Brockley, S.E.

[3] Stimulants and Narcotics. [4] Diseases of Women.

A RARE CONDITION OF VEINS IN THE ANTERIOR VAGINAL WALL.

BY H. T. RUTHERFOORD, B.A., M.B. CANTAB., &c.

MRS. A. D——, aged sixty-five years, married forty-six years, mother of ten children, the last pregnancy occurring twenty-six years ago; has had one miscarriage thirty years since; menstruation ceased at forty-five years of age. The patient presented a pale, sallow, rather cachectic appearance, reminding one somewhat of the cachexia seen in patients suffering from malignant disease, but she stated that she was perfectly well and of good colour until a few days before seeing me. Her history was that she had never suffered a day's illness until January 10th, 1887, when she met with an accident during the frosty weather prevailing at that time. As she was stepping off the pavement to cross the road she slipped and fell heavily on the pavement. She was helped up, and on starting to cross the road felt something trickling down her thighs, like water or blood. She returned home at once, and found she was flooding severely. As this was the first appearance of blood from the vagina for twenty years she was considerably frightened. The flooding continued for four days, becoming profuse on coughing or attempting to walk about her room; but she had to do a certain amount of work each day, as she was alone in the house and had no friends to help her. On Jan. 14th the hæmorrhage ceased, but began again on the following day, and continued off and on till Feb. 1st, when she came to see me. Physical examination showed there was a slight varicose condition of the labia majora; the vagina was small, the entrance having atrophied somewhat. Just beyond the ostium vaginæ the examining finger came upon a soft oval tumour projecting into the vagina. The cervix was small and atrophied. A small-sized Ferguson's speculum was passed, to ascertain if the hæmorrhage came from the uterus, but no blood was seen escaping from the os uteri externum, which was quite healthy. On gently withdrawing the speculum, the hæmorrhage was observed to come from a valve-like opening in the right and anterior part of the tumour, which was the size of a large walnut, having at its anterior extremity a beak-like projection. The apex of this projection was about a quarter of an inch behind the urethral orifice. The tumour was of a dark-bluish the urethral orifice. The tumour was of a dark-bluish colour, its surface irregular and divided by many shallow sulci, and on touch felt like a varicocele. It was, in fact, a mass of dilated veins, projecting posteriorly into the vagina and anteriorly into the urethra, narrowing the lumen of that passage at one point in a slight degree. The treatment consisted of applying the strong solution of perchloride of iron externally over the valve-like opening, and applying pressure to the whole tumour by means of pledgets of cotton wool. A strong saline purge was ordered, and absolute rest in bed enjoined. The patient at the same time was instructed how to apply pledgets of cotton wool over the tumour, the pledgets to be ap-

plied every day. She returned in a week, said she had followed out my instructions as to rest and the daily application of pledgets, with the result that for the last one or two days she had been going about the house without being troubled with hæmorrhage. She had gained flesh and colour, and was in every way stronger. The tumour, though present, was certainly diminished. She has been seen by me once or twice since, and says she feels quite well, has had no more hæmorrhage, is doing her every day work, and does not intend to see a doctor again unless a fresh hæmorrhage attacks her.

Remarks.—Varicose and enlarged veins in the region of the vulva and in the vagina are of common enough occurrence during pregnancy, and at times give rise to serious hæmorrhages during or after parturition; but I have never seen, nor can I find recorded in any volume of obstetrics or gynæcology with which I am acquainted a similar condition of dilated veins in a subject sixty-five years of age, who was, as far as one could judge from examination, perfectly healthy, and who certainly presented no other signs of varicose veins in any other part of the body. No tumour was found in the pelvis, either per vaginam, per rectum, or on abdominal palpation, which might have accounted for this varicosity, and I must confess I am at a loss to explain its occurrence. The rupture and consequent hæmorrhage are easily accounted for by the extra pressure in the venous system, acting on what was evidently a weak part in the wall of the dilated vein. The sudden hæmorrhage with the almost cancerous cachexia presented by a patient of her age, the mother of ten children, might easily have led one to suspect malignant disease of the generative organs.

Queen Anne-street, W.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

A PROPOSED MODIFICATION OF MOORE'S TREATMENT OF ANEURYSM.

BY W. E. STRAVENSON, M.D. CANTAB., M.R.C.P.,
ELECTRICIAN TO ST. BARTHOLOMEW'S HOSPITAL.

THE papers read before the Royal Medical and Chirurgical Society on April 12th on the Treatment of Internal Aneurysms by the Introduction of Steel-wire into the Sac, and the subsequent discussion thereon reported in THE LANCET of April 16th, have suggested the following modifications and additions to the operation:—That the wire used should be soft iron wire, instead of steel, of No. 29 gauge according to the Birmingham scale. That the introduction should be accomplished by means of a perforated needle fitted to a handle similar to that used for the operation of staphyloraphy, as suggested by Mr. T. Smith. That the wire should not, as in the latter instance, be previously wound upon a reel or bobbin, but should be paid out from a tolerably large coil or skein so as to reduce the chance of kinking. The amount of wire to be used will vary in accordance with the size of the aneurysm. That the perforated needle should be a straight one made of ivory, and much longer than those ordinarily employed for cleft palate.[1] That the needle should be introduced to such a depth that the point would be well within the aneurysm. When sufficient wire has been introduced, it should be cut off near the hank or coil from which it was paid out; the handle detached from the needle; the needle left in the aneurysm with the end of the wire protruding from it. That the wire should then be connected with the *positive* pole of a strong galvanic battery; a sponge, or tin and amadou plate electrode, moistened in salt-and-water, should be attached to the negative pole and placed on some indifferent part of the body. That the circuit should be closed, and a current of from fifteen to twenty milliampères passed through the aneurysm until it became consolidated, or for thirty minutes. The pad connected with the negative pole should be moved to different parts of the body when found necessary, so as to avoid any particular spot becoming blistered or sore. That at the conclusion of the operation the remaining piece of iron wire protruding from the needle should, if not already detached by the decomposition which had taken place in the sac, be pushed through the perforated needle by a blunt trocar into the aneurysm, and the small puncture hole closed by a piece of strapping. The introduction of soft iron wire into the sac of an aneurysm would be a great additional advantage in the employment of electricity over the usual method of galvano-puncture. When attached to the positive pole of a battery, coagulation would be encouraged within the aneurysm, and the wire itself would undergo decomposition with the formation of chloride and oxide of iron, which would, in addition, exercise their own specific coagulating properties.

It was mentioned by Dr. Pringle in the discussion already alluded to that the clot resulting from electrolysis is distinctly softer than an ordinary clot. If this be so, it is no doubt partly due to its rapid formation, and it would no doubt shrink and consolidate, and possibly become as firm as any other clot when of a similar age. In the operation now suggested, the clot produced by electrolysis would have a long and extensive origin, and be entangled in innumerable positions by the coils of the iron wire. Another probable reason why the coagulum formed by electrolysis "appears very frequently not to be stable, but to be liable to melt down again into the blood stream,"[2] is because needles attached to both poles, or to the negative pole, have been used. Around the negative pole the blood is coagulated into a yellow friable alkaline mass, composed to a great extent of gas bubbles, which very quickly breaks down. Around the positive pole the clot is smaller, firmer, and darker in colour, and has an acid reaction. From the physical laws of electrolysis, and from the experience already obtained, it would seem probable that a combination of Moore's treatment of aneurysm with that by galvano-puncture, as here sketched out, would offer a very fair chance of a successful result.

Welbeck-street, W.

[1] Messrs. Coxeter, of Grafton-street, have made me such a needle.

[2] See Mr. Timothy Holmes' Lectures on the Surgical Treatment of Aneurysm. (THE LANCET, Sept. 7th, 1872, p. 326).

ASPIRATION OF THE URINARY BLADDER.

BY A. WILKINSON, M.D.

HAVING seen Mr. G. Buckston Browne's letter in your issue of Feb. 26th, also the report of and discussion on a paper read by Mr. W. H. Bennett at a recent meeting of the Medical and Chirurgical Society on a case of rupture of the urinary bladder which terminated fatally as a direct result of aspiration above the pubes, I am induced to send you the notes of a case in which the bladder was aspirated by this method sixty-nine times in immediate succession by myself and assistant alternately.

The patient, a large fat man, aged sixty-seven, had been an invalid three years owing to brain mischief, and during that time was gradually getting worse. His intellect was so far impaired that none of his statements could be credited, but, as far as could be ascertained, he had had some difficulty in micturition, but no actual retention till Sept. 3rd, 1885, the date of my first visit. The history, condition, and symptoms—aphasia and paresis—pointed to cerebro-spinal disease; but an enlarged prostate, fully the size of a tennis-ball, undergoing some active change, probably inflammatory, was the immediate cause of the retention. The bladder was greatly distended, and the urethral passage narrow, tortuous, and painful. With considerable difficulty a No. 5 gum-elastic catheter was passed, and about thirty ounces of urine drawn off. This was repeated on the 4th and again on the 5th, but from the latter date to Oct. 16th, as no catheter could be passed, supra-pubic aspiration was resorted to, sometimes once a day, more often twice. The punctures were made with a fine needle corresponding in size to No. 19 wire. The natural route to the bladder was still occluded, and aspiration having been performed fifty-four times, on Oct. 16th I punctured above the pubes with Pearce's trocar and cannula with the view to establish a permanent outlet. The cannula was tied in, but owing to the patient's interference, he twice pulling it out, that course was abandoned. The aspirator was again brought into use, and continued until the 25th, when I succeeded in passing a No. 3 soft catheter, to which an exhaustor was attached, and the

urine drawn off. The catheter was tied in, but removed by the patient in his demented condition. On the morning of the 27th about a teaspoonful of pus suddenly gushed from the urethra, and on passing the catheter about four ounces came through it, fairly conclusive that prostatic abscess had been the cause of the retention. Catheters gradually increasing in size were passed from day to day, until No. 10 could be easily introduced even by the patient's attendant. In this case the urinary bladder was aspirated above the pubes sixty-nine times in succession. All the punctures were made within an area about the size of a crown-piece, the most recent being as far removed as possible from the previous one. Small subcutaneous shot-like indurations followed the punctures, but soon disappeared, leaving no ill effects. The urine, which at no time contained sugar, after three or four aspirations became excessively large in quantity, being secreted at the rate of five ounces an hour, often more, and subsided to its normal amount when the aspirations were discontinued. The patient residing at a distance of nearly four miles, and the urine being so large in quantity, over-distension was not an unfrequent occurrence, but notwithstanding this unfavourable circumstance the bladder maintained its own fairly well throughout, the urine only becoming slightly turbid toward the last. The patient so far recovered that his attendant was enabled to relieve him by a soft catheter when necessary.

Shaftesbury, Dorset.

A REMARKABLE CASE OF FIBROMA MOLLUSCUM.

By FRANCIS W. CLARK, L.R.C.P., M.R.C.S.

THE following notes of a case of fibroma molluscum will, I think, be of interest from the exceptional rarity of certain of the features presented by it.

The patient, a man aged seventy, is covered from head to foot with a number of subcutaneous tumours of various sizes, some of them being pedunculated, while others are sessile. These tumours are of very soft consistence, and there is an entire absence of that lobulation which is so characteristic of subcutaneous fatty tumours. The largest of these tumours is one which forms a complete anklet around the left ankle. One of the smaller pedunculated growths was removed for further examination, and on section it was found to consist of a gelatinous translucent material, which under the microscope was seen to be composed of a very fine reticulum of fibrous tissue, containing in its meshes a transparent gelatinous material—myxo-fibroma. The patient dates the onset of this condition from a fright he received thirty years ago, when he happened to be a spectator of a severe railway accident. He states that since that time these tumours have gradually appeared, most of them developing during the first twelve months subsequently to the fright. It is a curious feature in the case that the patient's daughter, who was born some twelve months after the appearance of the tumours, is also covered with similar growths, though they are less numerous. The case was shown for me by my friend, Dr. J. Kingston Fowler, at the Clinical Society of London in February last, and was then considered to be unique.

Croydon Infirmary.

DISLOCATION FORWARDS OF THE HAND.

By CHARLES AITKEN, M.B.

THE following report of a dislocation of rare occurrence may be of interest:—

In July last W——, a boy aged sixteen, was brought to my surgery with the history that he was sent up a tree to fasten a rope to one of its branches, so that it could be pulled down in a certain direction. While the boy was among the branches his master cut away at the stem, and the boy fell. He was not sensible for a few minutes after falling, and on becoming conscious thought that his arm was broken. Neither did he remember whether he fell with the palmar or dorsal aspect of his hand facing the ground. On examining him, I found that he had a dislocation forwards of the right hand on the arm and almost compound on the palmar aspect. The ends of the radius and ulna could be felt distinctly on the back, and there was a rounded swelling on the front. On pulling the hand away from the arm the dislocation was reduced with a loud snap. There was some swelling for three months over the carpal bones in front, but that has entirely disappeared and the boy's arm is now as well as usual. On referring to the surgical dictionary by Heath, and to Holmes' and Hulke's Surgery, I see it is mentioned that the above dislocation is a very rare one indeed.

St. Mawes, Cornwall.

ABSENCE OF THE OCCIPITAL BONE AND SKIN IN A NEWLY-BORN INFANT.

By WILLIAM FRASER, M.B. T.C.D.

I RECENTLY came across a curiosity which will no doubt be of some interest. Among the books at my command (including Dr. Neale's "Digest," Sydenham Society, 1877), I cannot find any mention of a similar case.

About 3 A.M. on Nov. 20th I was asked to go to Mrs. W——, living about eight miles away, who was in labour with her third child. On my arrival there was a mysterious silence and glances which betokened that the baby was stillborn, but the afterbirth was retained. Having seen to the mother, I turned to the child, and the mystery was then explained. I found a female infant of about seven months and a half (though the mother says she did not expect to be confined until the end of December). The body was fairly nourished and well formed, the head flattened in its antero-posterior diameter, the eyes large and protruding; a black mass on the back of the skull proved to be the cerebellum exposed to view, with complete absence of the occipital bone and the skin covering it. On loosening the cerebellum and lifting it up I could see the base of the skull, and was able to push a piece of wood down the spinal canal. No cause could be assigned by way of fright or anything else.

Ashburton, Devon.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

MIDDLESEX HOSPITAL.

CASES OF SARCOMA IN CONNEXION WITH KNEE, FOOT, AND EAR; RESULT.

(Under the care of Mr. HULKE.)

THE cases of sarcoma reported in our impression of May 28th (p. 1086) illustrated the occurrence of this form of new growth in young adult life, evincing in its progress clinical features as malignant as those exhibited by any carcinoma. The first case of the present series exemplifies the same facts; it illustrates local recurrence after excision, and infection of remotely situated viscera manifesting itself at a date long after amputation of the limb. But this case has an additional interest in the illusory resemblance presented by the primary tumour in its clinical characters, in its apparent seat and connexions, and in its naked-eye appearances after removal to a multilocular ganglion. The deception was occasioned by the presence of the myxomatous elements, which simulated the structureless colloid contents of a common ganglion. The second case illustrates the occurrence of melanotic sarcoma in middle life in a form which, as regards the primary tumour, deceptively resembled epithelioma, and which led to its being mistaken for this—a mistake not unlikely to occur where the melanotic constituent exists in a minimum quantity in the original tumour, and only attains considerable development in the larger secondary masses, a by no means uncommon circumstance. The frequent development of melanosis in moles is too well known to need more than passing mention. The sole and the clefts between the toes would seem to be the favourite situations for this form of sarcoma, possibly because in these situations any little, apparently trivial, tegumental disorder is more exposed to pressures and to other kinds of local irritation. The third case is an instance of melanotic sarcoma occurring at an unusually early age, and in a very

unusual situation. Here also the tendency to rapid local recurrence was very strongly pronounced. It is to be regretted that the entire auricle was not in the first instance excised, but the mutilation thus involved was regarded by the patient as so likely to prevent his continuing to obtain employment in his calling that he was averse from entertaining the recommendation to submit to it.

CASE 4. *Myxo-sarcoma; primary tumour simulating multilocular ganglion; recurrence in liver after excision; amputation; death from recurrence in lungs about four years and a half after the first operation.*—A milliner, aged eighteen, a blonde, apparently in the enjoyment of excellent health, was admitted into Regent ward on Jan. 13th, 1880, for a swelling of the left knee joint, latterly accompanied with so much pain as to render walking very difficult. The swelling was about the size of a pigeon's egg; it was firm, yet somewhat elastic; its consistence suggested that it might be a very tightly distended cyst. When the leg was extended, the swelling seemed fixed to the femur just above and slightly behind the external condyle; but when the leg was flexed a distinct mobility of the swelling upon the femur was recognisable. It was in close relation to the tendon of the biceps muscle, which passed behind and internal to it. The patient stated that about four years previously she first began to suffer pain in the knee, which was regarded as rheumatic; the pain gradually increased, and this latterly to such an extent that the limb was nearly disabled. The swelling was first noticed about one year before she entered the hospital. The diagnosis was a ganglion connected with the bicipital sheath, tightly distended. A few days later the swelling was exposed and dissected out. Its rough characters were those of multilocular cyst, the spaces of which were filled by a jelly-like substance. The wound healed well, and the patient went home on Feb. 26th.

On Aug. 26th, 1881, being about nineteen months after the first operation, the patient again sought admission into the hospital. A note of her condition at this time states that there was at the outer and posterior aspect of the knee a subglobular nodular swelling, three inches in diameter, crossed by the scar of the former operation. Its consistence was not uniform, being mostly firm, but in some situations so soft and elastic as to occasion the idea of fluctuation. The mass was plainly now attached to the femur. The patient was unable to fix the date of the reappearance of the tumour, but she thought that it was not very long after she left the hospital. She attached so little importance to it that it did not deter her from marrying. Amputation was proposed by Mr. A. Clark, then in charge of Mr. Hulke's ward, but it was declined by the patient, who left the hospital.

On Nov. 4th following the patient returned, looking thin, anxious, and worn. The tumour had in the interim considerably increased. The limb was removed by a circular amputation at the middle of the thigh. The femoral artery was secured by torsion. The stump suppurated and healed slowly, so that she did not leave her bed until Jan. 4th, 1882. At the middle of the month she was allowed to return home, having gained flesh, and feeling stronger and looking much better than before the amputation. The tumour proved to be a myxo-sarcoma, springing apparently from the periosteum of the outer condyle of the femur. The preparation is preserved in the Middlesex Hospital museum, No. 544, catalogue.

The patient was not seen again until the autumn of 1885, when she entered a medical ward for intense dyspnœa, under the care of Dr. Cayley, who referred it to sarcomatous infiltration of lung.

Death occurred suddenly. At the necropsy, Dr. Fowler found the upper lobe of right lung compressed by a sarcomatous mass, a portion of which intruded into the right bronchus. From this a detached nodule of the size of a walnut had escaped into the trachea and caused suffocation. The middle lobe of the right and the lower lobe of the left lung each contained a small knob of tumour. Its histology was that of spindle-cell sarcoma.

CASE 5. *Melanotic sarcoma; primary tumour in the sole of the foot, simulating epithelioma; recurrence after excision, and wide dissemination of secondary tumours.*—E. W——, aged fifty-four, an extremely fat woman, was admitted into the Regent ward on June 26th, 1880. In the middle of the sole of her right foot was an ulcer of the size of a shilling. Its edges were abrupt, raised, and slightly everted, and its base was warty. It was tender and painful, and prevented her walking. She stated that the sore had begun about one year previously in a small mole which she picked because it itched. The circular outline of the ulcer was not unlike that of a perforating ulcer, but its situation was in the hollow of the sole, and not in a part subjected to pressure, as the balls of the toes or heel, situations for which perforating ulcer would appear to exercise a selection. The edges of the ulcer were everted and not undercut, and the base was warty, both of which circumstances were unfavourable to the supposition of its being a perforating ulcer. The absence of all symptoms of tabes dorsalis, with which malady perforating ulcer so frequently concurs, was also against this view of its nature. The probabilities were considered to be in favour of its being an epithelioma. On June 30th it was very freely excised. Cicatrisation proceeded very slowly. This was attributed firstly to the little extensibility of the tegument in the sole. On July 27th, the wound having almost closed, and appearing healthy, she was allowed to return home. A few weeks later, when she next presented herself at the hospital, there was evidently a renewal of the growth at the seat of the operation, and now, first, enlargement of the inguinal and also of the lymph glands along the course of the external iliac vessels was detected. This extensive glandular implication barred further operative measures. She was seen at intervals in the course of 1881–84; in the latter year she died. Large tumour masses appeared in the leg and thigh, upon the right shoulder, and in the neck. They were bossy and elevated, and imparted to the attenuated skin covering them the bluish-black appearance characteristic of melanosis.

CASE 6. *Melanotic sarcoma of auricle; excision; recurrence; second operation; recurrence.* — A footman, aged twenty-three years, was admitted into the hospital on March 2nd, 1883. In the lobe of the left auricle and on the posterior border of the helix, at its lower end, he had two small rounded swellings of a violet-bluish colour, overrun with dilated capillary bloodvessels. The upper of the two swellings was of the size of a small grape; the lower was slightly larger. They were not tender or painful. No enlargement of the cervical lymph glands or other swellings were discoverable. He said that the upper swelling had been first observed about five years previously, being then as large as a "pea." He had noticed the existence of the lower swelling about one year. The appearance of the upper swelling was slightly suggestive of hæmatoma, but this is commonly an incident in perichondritis of traumatic origin, being of not very infrequent occurrence in pugilists. Here, however, there were not any circumstances pointing to injuries of the external ear, and there was an absence of tenderness and of heat; besides, hæmatomata are limited to the cartilaginous part of the auricle, and here the lower swelling was seated on the lobe. The diagnosis of hæmatoma was also rebutted by the duration for five years from the first appearance of the upper swelling. The appearance of the swellings was very suggestive of melanotic sarcoma, but the duration threw doubt on this supposition, and the infrequency of such new growths in the auricle, and the patient's age, tended to confirm this doubt. He would not permit more than the least possible mutilation of the ear consistent with the removal of the swellings. These were therefore excised. Their naked-eye appearances and histology were those of melanotic sarcoma. On March 10th he returned home with the wound apparently soundly healed. In the following August he returned with a recurrence of the melanosis in the scar and in the neck. Mr. Lyell, then in charge of Mr. Hulke's wards, freely excised the masses in the ear and neck. The wounds healed, but before long such extensive recurrence occurred in the neck as placed the patient beyond further surgical aid.

HERTFORD GENERAL INFIRMARY.

A CASE OF HYPERTROPHY OF THE SPLEEN; DEATH; NECROPSY.

(From notes by Mr. H. G. SHORE, House-Surgeon.)

E. T——, aged twenty-eight, married, came to the out-patient room on April 4th, having walked two miles and a half. She was evidently suffering great pain, and was considerably exhausted, so she was sent into the ward at once, when her temperature was found to be 102·8°. The patient has had five children, the youngest two years and three months old. Catamenia normal. She says she has had a tumour in the abdomen since last August, but her friends say she has been looking ill for two years. She has suffered

pain during the last fortnight, but has not consulted any doctor. She says the tumour was first noticed just above the left anterior superior spine of the ilium, and has been getting larger for the last four or five months. There was no history of malignant disease, of syphilis, or ague (?). Urine: sp. gr. 1020; acid; no albumen.

On examination, a tumour was found occupying the whole of the left side of the abdomen, with a well-defined inner and lower edge, it being just possible to get one's fingers between the lower margin and the ilium. Percussion did not give an absolutely dull note. The tumour felt hard, and extended right back into the lumbar region. The patient was in considerable pain, which was, however, relieved by hot fomentations with laudanum sprinkled thereon.

April 5th.—The patient slept about six hours after the hypodermic injection of morphia (gr. ¼), and atropine (gr. $\frac{1}{150}$). Temperature 104·2°. Systolic murmur audible at the base of the heart. Nothing remarkable about the lungs, excepting loud breathing over the right back. Uterus normal.

6th.—Temperature 103°. The pain still continues, but is relieved by laudanum fomentations and by an anodyne mixture containing fifteen minims of tincture of opium. Urine: sp. gr. 1020, albuminous, and contained pus and blood. Fæces dysenteric in character, and apparently contained pus. Farinaceous diet ordered, with beef-tea, soda-water, and brandy (two ounces). There was some difficulty in obtaining the urine, and possibly the specimen was not pure.

8th.—The patient seemed somewhat better yesterday, was in less pain, and the temperature 102°; but this morning she is in great pain, temperature 103·8°, lips purple, and apparently some interference with circulation. An exploratory puncture was made, and two ounces of sanious serum drawn off by means of the aspirator.

9th.—In less pain; tongue not so furred; temperature 102°; pulse 120, soft, of fair volume.

10th.—Tongue dry; sordes about teeth; very exhausted; pulse 124, not feeble. Exhaustion shows itself principally in shallow respiration, &c. Veins of right iliac region very distinctly visible. Less peritoneal distension. Wound of puncture healed; tumour unaltered in appearance. Noon: The patient became cyanosed. A subcutaneous injection of ether (twenty minims), to be repeated in an hour, was administered. Took nourishment well, but died at 5 P.M.

Necropsy.—Thoracic viscera perfectly normal, with the exception of rather an excess of fluid in the pericardium. On opening the abdominal cavity, an enormous spleen was found filling up the whole of the left side from the diaphragm to the iliac region; it appeared perfectly normal, except that the capsule at the posterior border, about the centre, showed signs of inflammation; on section, the organ was quite natural in appearance. Weight of spleen 5½ lb. The liver was greatly enlarged and fatty; kidneys normal, but left ureter distended; bladder and uterus normal. There was evidence of enteritis, but to no very marked extent.

The enormous size of the spleen is so remarkable as to justify the case being published. Unfortunately, the acute pain and high temperature prevented any large operative measures being attempted.

STAMFORD, RUTLAND, AND GENERAL INFIRMARY.

CALCULUS VESICÆ; SUPRAPUBIC OPERATION; DEATH; NECROPSY.

(Under the care of Mr. GREENWOOD.)

N. R——, male, aged four years and a half, a well-nourished, healthy-looking child, was admitted with the following history. The symptoms of calculus had been noticed for six months, and had been worse for the last two months. No blood had been seen in the urine and no albumen was found, but considerable phosphatic and mucous deposit. There was no phimosis, but the prepuce was adherent to the glans to some extent. On sounding, the instrument struck and passed over a calculus lying to the right side, and the impression was that it was a large one.

On Oct. 18th, 1886, under the influence of ether and chloroform, an elastic bag was passed into the rectum and partially distended; but the bag seemed rather too large for this case. A gum-elastic catheter was passed, and three ounces of boracic acid lotion injected into the bladder. The catheter was withdrawn, and an elastic cord tied around the root of the penis. The rectal and vesical distension were not sufficient to throw the outline of the bladder into prominence. The abdomen was opened in the mid-line by an incision two inches long upwards from the symphysis pubis. It was not easy to feel the bladder at first, as it eluded the finger, falling over to the right side. Two silk sutures were passed through the bladder wall, and between these the bladder was opened. The stone was then felt lying transversely in the bladder, which was contracted on it, the fluid contents having escaped. The position of the stone was changed with the nail of the forefinger, and then it was extracted with fine lithotomy forceps. The stone, which was flattened and oval in shape, weighed 3 drs. 6 grs. A drainage tube the size of a No. 8 catheter, with two side openings at the lower end only, was introduced for two inches and fixed in place to the abdominal wall by two horse-hair sutures; it extended for six inches outside the abdominal wound. No sutures were placed in the bladder. Deep catgut sutures and superficial silver ones were used for the upper part of the wound. The dressing was iodoform and Gamgee's cotton-wool tissue, through which the drainage tube passed. The child was placed on his left side in bed, and urine began to drain through the tube in half an hour without a stain of blood. The dressings were renewed every morning, and urine continued to drain off through the tube until the fourth day, when it was removed, and two hours afterwards half an ounce of urine was passed per urethram.

Oct. 31st (thirteenth day).—Has been kept on milk diet, and at no time has there been any rise of temperature. About half the urine passed per urethram (an ounce at a time), the rest per abdominal wound, which is granulating from the bottom and looking well.

Nov. 4th (seventeenth day).—Yesterday evening he was sick after taking some milk, but no rise of temperature was noticed, and no change in the local conditions, but at 7 A.M. to-day he became collapsed and died in twenty minutes.

At the post-mortem examination the bladder wound was united, except at one point admitting a fine silver probe. Bladder contracted, with half an ounce of urine in it, and with hypertrophied walls. No escape from the wound into the abdomen could be detected, and the kidneys were healthy.

What was the cause of death? The child was quite well up to the attack of sickness.

Medical Societies.

OBSTETRICAL SOCIETY OF LONDON.

A MEETING of this Society was held on Wednesday, June 1st, Dr. John Williams, President, in the chair.

It was unanimously agreed that an address should be presented from the Society to Her Majesty the Queen on the occasion of the completion of the fiftieth year of her reign.

Microscopic Sections of a Human Embryo.—Mr. LOCKWOOD exhibited a series of sections showing absence of spinal medulla with arrest of the development of the spinal column and retroflexion of the lower limbs. The embryo was eight millimetres long, and had reached about the sixth week of intra-uterine life.

Fœtal Membranes were shown by Dr. BLUETT in which two tumours were found. The labour had been natural and delivery took place at full term.

Spontaneous Gangrene of Cervix Uteri and Base of Bladder.—The parts were shown by Dr. HERMAN, who said they had sloughed away spontaneously from a woman who had not been pregnant for eight years.

Hydatids from the Mesentery were exhibited by Dr. Malins; a Fibroid of the Ovary by Dr. John Williams; a Fibro-cyst and a Solid Fibroma of the Ovary by Mr. Meredith; and a Fibroma of doubtful origin by Mr. Malcolm. These four tumours and Dr. Bluett's specimen were referred to a committee.—A Sloughing Fibroid Polypus was shown by Dr. W. Duncan.

Cæsarean Section.—Dr. C. J. CULLINGWORTH gave an account of this case. A rachitic dwarf, aged thirty, 4 ft. 2 in. in height, was sent at full time to the author. The pelvis was generally contracted and flat, the estimated conjugata vera being two inches and a quarter. The child was alive. There was great albuminuria, with œdema of the abdominal

wall, labia, and legs. Labour began spontaneously, and when the os uteri was as large as a florin Cæsarean section was performed with full antiseptic precautions. The child weighed 5 lb. 9 oz., and was extracted by one leg; it was partially asphyxiated but soon recovered. After clearing the uterus of the placenta and membranes, its lower segment was constricted by an elastic ligature. The loss of blood was trifling. The uterine wall was united by four deep silk sutures, and the peritoneal edges by six finer superficial silk sutures. The patient died twenty-nine hours after operation, the temperature remaining under 100° F. until two or three hours before death, when it rose to 100·8° F., pulse 140. At the post-mortem there was no sufficient cause of death found except acute parenchymatous nephritis.—The PRESIDENT wished to know if the kidneys and urine had been examined microscopically, and the quantity of urine passed after delivery. The low temperature was characteristic of uræmia, and he thought there was fear of carbolic poisoning where the kidneys were badly diseased.—Dr. HORROCKS thought death was probably due to shock, and that the elastic ligature compressing the plexuses of nerves as they enter the uterus would increase this.—Dr. J. PHILLIPS asked by what sign the seat of the placenta was determined, and why the uterus had been brought outside the abdomen before extracting the child?—Dr. W. DUNCAN considered that it was better to place the elastic ligature around the cervix before opening the uterus.—Dr. LEWERS thought that, although improved results in Cæsarean section had been reported from abroad, such success had not been met with in this country, and he preferred the old rule of delivery, when possible, *per vias naturales*. In the case under discussion this was possible.—Mr. MEREDITH though that the Porro operation might have been preferred with a view to ensuring against the possibility of a future pregnancy.—Dr. MATTHEWS DUNCAN said that neither he nor perhaps anyone in this country had large experience of Cæsarean section, and that it was to Germany that we must look for the guidance of experience and such wonderful success as that of Sänger, Leopold, Credé, and Gusserow. It was such success alone that should and would lead us in the great practical question, and their cases showed at present a less mortality with Cæsarean section than with Porro's operation. Both operations had a place in obstetric surgery, and he thought Dr. Cullingworth had rightly selected Cæsarean section; while in the case to which Mr. Meredith had alluded, as there were several large fibroids, Sir Spencer Wells had wisely selected Porro's operation. No amount of eloquence about the abolition of craniotomy would help forward that much-to-be-desired result. There had been much of such talk. Nothing but success in some alternative operation would do the least good.—Dr. MATTHEWS DUNCAN approved of the course adopted by Dr. Cullingworth, and thought the renal disease was probably the chief cause of death.—Dr. CHAMPNEYS said that the seat of the placenta could not be diagnosed by uterine souffle, and that often there was no sound at the seat of implantation, while it could be heard after the removal of the placenta, and in cases where there was no placenta, as in fibroid tumours. It could not be too strongly urged that the uterine souffle was no guide whatever to the placental site. He thought the tracing was typical of a generally contracted flat pelvis, and that, although four or five years ago Cæsarean section would not have been justified, improved methods and antiseptics rendered it the proper practice as an operation of election.—Dr. CULLINGWORTH replied.

On the Mechanism of the Third Stage of Labour; the Separation and Expulsion of the Membranes.—Dr. F. H. CHAMPNEYS reviewed the literature of the subject, and the various views expressed. These amount to four: (1) the peeling off of the membranes by the traction of the descending placenta; (2) separation by effusion of blood; (3) wrinkling of the membranes by uterine contraction and retraction; (4) separation of the lower pole of the ovum by retraction of the lower uterine segment. The author dismissed No. 2 on the ground that the quantity of blood lost in an ordinary labour is too small to produce this result, and that, with the usual excentric implantation of the placenta, this mechanism would fail of its purpose. He criticised the expression "weight of the placenta," as having influence on the mechanism in the recumbent attitude, and also the expression "leaving (the process) to nature," as applied to its course in the recumbent attitude. He explained the natural process as follows: (1) Separation of the lower pole of the ovum by retraction of the lower uterine segment during the "premonitory" stage of labour. This requires a complete "bag of waters." (2) Wrinkling and partial separation of the membranes by diminution of the internal surface of the uterus. This requires some escape of the waters. (3) Peeling off of the membranes by the traction of the descending placenta. This requires the evacuation of the uterus. The rupture of the membranes at the proper time is an integral part of the normal process. The first stage in the process seems calculated to prevent a very common defect—viz., the adhesion of the membranes round the lower uterine segment.

Tubo-ovarian Cysts.—Dr. W. S. A. GRIFFITH, in a paper on this subject, referred to the scanty literature of the subject, and gave an abstract of all recorded cases obtained, numbering nineteen. The literature of the subject is comprised in the original papers by Adolphe Richard, and in recent ones by Olshausen and Burnier. The specimens were divided into two groups, a small group of four in which the ovarian portion of the cyst is multilocular, the tube communicating with one loculus, and a group of eighteen in which the cyst is unilocular. The question of unilocular cysts of the ovary was discussed, and these were identified with the larger unilocular cysts described by Olshausen. The subject of the formation of tubo-ovarian cysts was subdivided, and received the following answers:—That the dilatation of the tube, and the formation of the ovarian cyst, are usually secondary and not primary factors in the formation of tubo-ovarian cysts. That the application of the tube to the ovary is physiological or possibly accidental. That the permanent adhesion of the two is effected by adhesive inflammation. That the communication between the two is generally either a primary occurrence or takes place at a very early period in the formation of the cyst.

The discussion of these two papers was deferred till the next meeting.

ANATOMICAL SOCIETY.

A MEETING of the above Society was held on the 6th inst., when the following propositions of the committee were adopted:—"That not less than four meetings be held in each year. That the officers of the Society shall consist of a president, three vice-presidents, a treasurer, a council of twenty, and three secretaries. That the officers be elected by ballot at each annual meeting. That as far as possible, in the election of president and vice-presidents, there shall be two representatives of England, and one each from Scotland and Ireland. That there shall be a secretary for England, one for Scotland, and one for Ireland. That the Council shall, from amongst their number, select six members to form, together with the president, vice-presidents, treasurer, and secretaries, a committee of management."

It was announced that the next meeting would be held on July 7th, at which papers would be read by Professor MacAlister, F.R.S., Dr. Brooks, and J. Bland Sutton; and specimens &c. exhibited by R. J. Godlee, Dr. Bruce Clarke, James Berry, and Dr. W. J. Collins.

The following is a list of the officers elected:—President: George Murray Humphry, F.R.S. Vice-Presidents: J. Struthers, M.D.; John Wood, F.R.S.; and Daniel John Cunningham, M.D. Treasurer: Charles Stewart. Secretaries: C. B. Lockwood (England); David Hepburn, M.D. (Scotland); and William Thornley Stoker, M.D. (Ireland). Council: William Mitchell Banks, John Curnow, M.D., J. N. C. Davies-Colley, Edward Bellamy, Frank Beddard, John Cleland, M.D., G. B. Howes, John Langton, Henry Morris, Edmund Owen, Thomas Pickering Pick, Johnson Symington, Robert Reid, M.D., George D. Thane, Sir William Turner, F.R.S., Frederick Treves, Alexander Macalister, F.R.S., Bertram Windle, Alfred H. Young, and Arthur Thomson.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

AT the ordinary meeting held on May 6th, Dr. S. C. Smith, President, in the chair, the following papers were read:—

Diphtheritic (?) Slough of Vagina.—Dr. BLACK was called to the case of a girl suffering from feverish conditions, with slight swelling of the neck. Nothing else was complained

of but a slight itching of the genitals. Examination showed an acute gangrenous condition of the vulva, with ashy sloughs, resembling a diphtheritic inflammation. Later there were suppurating glands in the axilla covered with slough, and the gums were red and spongy. Under general medicinal treatment and the local application of iodoform recovery took place. There was no subsequent paralysis. No history of infection could be made out. The theory of diphtheria was put forward as a possible hypothesis.—Dr. CHURTON related a case where there was extensive sloughing of black colour in the soft palate of a man, causing death from hæmorrhage. No kind of infection could be discovered.—Dr. CAMERON thought the case could hardly be diphtheritic, from the character of the ulceration and the fact that diphtheria was seldom solitary.

Fracture of Thigh in a case of Paraplegia.—Dr. BLACK described a case where a man who had been paraplegic for thirty years, from an accident to his back when a boy, fractured his thigh. It was set without pain or spasm, and healing was rapid and complete.—Dr. S. C. SMITH had seen a similar case, healing with good results.—Dr. CAMERON had seen a fracture of the thigh in a case of locomotor ataxy, which was rapidly fatal.

On the convenience of estimating the amount of Urine voided by its Weight.—Dr. SPOTTISWOODE CAMERON spoke of the difficulty in private practice of obtaining exact measurements of urine passed, owing to the absence in most houses of measures less than half a pint. Weights, however, down to half an ounce, were always at hand, and it was easier for a patient to weigh the urine than to measure it. To simplify the calculation required, the following method was accurate enough for ordinary amounts of urine: write down the weight of the urine in ounces and decimals; multiply this number by the last two figures of the specific gravity, placing the product beneath and three places to the right; the difference is the bulk of the urine in fluid ounces.—Dr. S. C. SMITH said people had an objection to using ordinary measures for urine, and this plan was free from objection.—Dr. GRIFFITHS spoke of the necessity in estimating the urine passed of beginning with an empty bladder, the first morning's urine being disregarded, and measurement being begun from that time; this was the plan now adopted in the infirmary.

Emmett's Operation.—Dr. BRAITHWAITE described fourteen cases in which this operation had been performed. As operations, eleven were successful, two imperfect, and one a failure; but as relieving the symptoms complained of by the patients, six were successful, four unsuccessful, and two were complicated with other affections, which rendered the result difficult to estimate. The lacerations generally occurred in multiparæ, and the symptoms varied according to the amount of cicatricial tissue in the angle of the wound.

Therapeutic Memoranda: Ergotine; Hydriodate of Hyoscine.—Dr. ALLAN spoke highly of ergotine in the treatment of cough, whether phthisical or bronchitic. Given in a nightly draught in doses of form ten to twenty grains, it was safe, and seemed to greatly relieve cough and promote expectoration, without any disadvantages. In children he gave from four to six grains. He had tried also sclerotic acid in doses of from one to two grains. He recommended also hydriodate of hyoscine as a cerebral sedative where morphia or chloral was unsuitable, giving one-hundredth of a grain subcutaneously as an average dose. He had found it very useful in delirium tremens.—Mr. OAKLEY preferred the hypodermic use of ergotine, and samples varied greatly. He never used a sample for this condition until he had tested it by its effect on the uterus in a case of midwifery.—Dr. CHURTON had given hyoscyamine largely, but had seen alarming symptoms when the respiratory centre had been weakened, as in cases of pneumonia.—In reply to queries, Dr. ALLAN said he had found ergotine of most use when the cough was violent and persistent, but it was of limited value in very acute cases either of bronchitis or phthisis.

Adenoid Vegetations in the Naso-pharynx.—Dr. BRONNER read a paper on the treatment of this condition. He related the history of the discovery of these growths, and showed the instruments used in their removal. He preferred operating without any anæsthetic but cocaine, and had found Dalby's "steel nail" very convenient. Several tubes filled with the removed growths were shown, and cases described.

Dr. J. GIBSON showed the original form of Dr. Bergeon's apparatus for injecting gases into the rectum. He had been using carbon disulphide in several cases of phthisis, and he showed a patient who had derived considerable benefit from the treatment.

Aneurysm of Thoracic Aorta, with Asthmatic Symptoms.—Dr. CHURTON showed this specimen from a man aged fifty. Although no physical signs existed, the presence of an aneurysm had been inferred from the fact that the attack of dyspnœa always came on if the patient moved about much, even in bed. The aneurysm, which was small, sprang from the third part of the arch, and was in contact with the bifurcation of the trachea.

Reviews and Notices of Books.

Prelectiones Anatomiæ Universalis. By WILLIAM HARVEY. Edited, with an Autotype reproduction of the Original, by a Committee of the Royal College of Physicians of London. London: J. and A. Churchill. 1886.

THE restorer of scientific anatomy was Andreas Vesalius; the inaugurator of a rational system of physiology, William Harvey. The discovery of the circulation of the blood is the cardinal fact which separates modern from ancient medicine, and in this discovery both Vesalius and Harvey took important though unequal shares. To the former undoubtedly belongs the credit of initiating that series of observations, experiments, and reflections from which the theory of the circulation was educed; to the latter belongs the glory of combining them and completing them by a scientific induction. Until the publication of Vesalius' memorable work, "De Humani Corporis Fabrica," in 1543, the authority of Galen in anatomy and medicine had reigned supreme for more than thirteen hundred years. It was acknowledged by Oribasius in the fourth century, Aëtius in the sixth, and Paulus Ægineta in the seventh; it dominated the Arabian physicians, both in the East and the West, for more than half a thousand years, and it prevailed in all the schools of Southern Europe from the twelfth century onwards. Avicenna, the greatest of the Arabian physicians in the East, and their most prolific writer, took the greater portion of his anatomical descriptions from Galen; and Albucasis of Cordova, the boldest surgeon of the eleventh century, and the best, laid special stress upon the necessity of surgeons being acquainted with anatomy as it had been taught by Galen, "uti illam tradidit Galenus." Even Mundinus, who at the beginning of the fourteenth century publicly dissected and demonstrated the human cadaver at Bologna, followed Galen only too closely; and the account of anatomy given two hundred years later by John de Vigo is mostly taken from Galen, the "prince of physicians," as De Vigo calls him.

It was Vesalius who first deliberately challenged the authority and supremacy of Galen, and it is noteworthy that among the errors which Vesalius detected in Galen was one which proved the starting-point of the discovery of the circulation. Vesalius denied the existence of the perforations through the cardiac septum. To fully appreciate the importance of this observation, it is necessary to call to mind the views which had hitherto prevailed respecting the functions of the vascular system.

The only complete theory of these functions which has come down to us from ancient times is that of Galen. According to the earlier Greek anatomists the vascular system consisted of two kinds of vessels—namely, *veins* (φλέβες) or bloodvessels proper, and *arteries* (ἀρτηρίαι), the conveyers of "air" or "spirit" (πνεῦμα). The veins were thought to arise from the liver and to be connected with the right side of the heart, and the arteries to be connected with the left side of the heart. The anatomists of the School of Alexandria taught that the veins received from the liver the blood, enriched by the products of digestion, and dis-

tributed it to all parts of the body by means of the superior and inferior cavæ, and to the lungs by means of the pulmonary artery. The arteries, on the other hand, arising, as the aorta, from the left ventricle, were also directly connected with the bronchi by means of the ramifications of the pulmonary vein within the lungs. By these channels the external air drawn into the lungs by inspiration had access to the left ventricle, being converted into *pneuma* in its transit through the lungs. From the ventricle the *pneuma* passed through the aorta into all the arteries of the body. Erasistratus (fl. B.C. 300), however, held that though in health the arteries were filled with *pneuma* only, they did contain blood in morbid states or when divided. But Galen showed by reasoning and experiment that arteries always contain some blood, which is thinner, brighter, warmer, and more *spirituous* than venous blood. Adopting the tenets of the Alexandrian School, that communications existed between arteries and veins in the substance of the tissues, he argued that an interchange took place between the contents of the two sets of vessels, some of the *pneuma* of the arteries passing into the veins and some of the blood of the veins passing into the arteries. He maintained, however, that these communications were not free enough or numerous enough to account for the great gushes of blood which occurred whenever an artery was wounded. He assumed, therefore, that a direct communication existed between the right and left ventricles by means of fine perforations in the cardiac septum. He admitted that these perforations were imperceptible—at all events, in the left ventricle. Notwithstanding this, no one questioned the existence of these hypothetical perforations, or the passage of blood through them, for nearly fourteen centuries. Mundinus believed in them, and so did Berengario da Carpi. But Vesalius maintained that, although depressions were to be seen on both sides of the cardiac septum, none of them, so far as the senses could determine, passed through; nor could any channels whatever be found by which the septum could be made pervious.

A few years after Vesalius had published his description of the *structure* of the heart, his ingenious but erratic contemporary, Michel Servetus, hazarded a happy surmise concerning its *mechanism*. In a theological work—"Christianismi Restitutio," published in 1553—Servetus alleged that the communication between the blood in the right and left sides of the heart did not, as generally believed, take place through the septum, but by a circulation through the lungs. This was the first distinct expression of the so-called pulmonary circulation.

The discovery of the valves of veins was the next most important contribution to the observations and arguments that prepared the way for Harvey's crowning discovery. Though valves had been occasionally seen in veins by earlier observers, they were first recognised as proper constituents of the veins by Harvey's teacher, Fabricius ab Aquapendente, in the year 1574, and were systematically described and figured by him in "De Venarum Ostiolis," published in the year 1603. It is true that Fabricius misinterpreted the purpose and significance of the valves, but his descriptions greatly influenced Harvey, who was then studying at Padua. Some years later the Hon. Robert Boyle asked Harvey what were the things that had induced him to think of a circulation of the blood. Harvey answered that it was a consideration of the position and distribution of the valves of the veins, which were so placed as to give free passage to the blood towards the heart, but opposed the passage in a contrary way. What use Harvey made of these and other contributory facts, and what were the merits and characteristics of his method, and what the final form of his exposition of the doctrine of the circulation, are sufficiently familiar to every educated man, or ought to be. The point of special interest just now is, that by a happy accident we have now an opportunity of seeing the doctrine in its earlier and more tentative shape.

In August, 1615, Harvey was appointed Lumleian lecturer at the College of Physicians. The office was then held for life. He began his first course in the month of April of the following year, and there have always been grounds for supposing that he first announced his views of the circulation in that course, though he did not publish his opinions to the world at large till twelve years later. A small manuscript volume, bearing the date 1616, and containing rough notes and memoranda for his lectures, was known to have existed, and to have been in the British Museum in 1766, when Dr. Lawrence wrote the Life of Harvey, prefixed to the College of Physicians' edition of Harvey's works. This manuscript, with another volume, also in Harvey's handwriting, formed part of the collection of Sir Hans Sloane, which became the property of the nation in 1753. Some time after it had been examined by Dr. Lawrence the volume was missing for many years. In the year 1877 it was found among the printed books in the Museum, and was restored to its proper place among the manuscripts. In the same year it was described in the Harveian Oration by Dr. (now Sir Edward) Sieveking, who read several extracts from it, and exhibited an autotype of one of its most important pages. Dr. R. Willis, in his Life of Harvey, published in the following year, referred to it and to Sir Edward Sieveking's labours, and asked, "Would it not be worthy of the Royal College of Physicians of London to have the entire volume deciphered and published?" This suggestion has at length been carried out.

Sir Edward Sieveking continued his investigations, and at his suggestion the subject was brought before the Royal College of Physicians on March 30th, 1885. The result is the handsome and interesting volume whose title stands at the head of this notice. The manuscript is, as Dr. Willis truly said, "a jumble of Latin and English with ever-recurring abbreviations," and written "in a hand so cramped and scratchy as here and there to try the best skill of the decipherer." Mr. Edward Scott of the Manuscript Department of the British Museum has, however, succeeded in making a transcript of the whole, "a work of great labour owing to the extreme obscurity of many pages of Harvey's writing."

The volume abounds with interest, historical, bibliographical, and personal. It gives us an insight into Harvey's character; it lets us see his method of work; it tells us the books he read, and shows us the uses he made them serve. There is, however, one page, the interest of which is pre-eminent. It has already been published by Sir Edward Sieveking in his Harveian Oration, but as the earliest known expression of Harvey's views is worth repeating. Harvey has himself marked it with the initials "W. H.," as indicating its originality and its importance:—

"W. H. Constat per fabricam cordis sanguinem per pulmones in Aortam perpetuo transferri, as by two clacks of a water bellows to rayse water. Constat per ligaturam transitum sanguinis ab arteriis ad venas. Unde Δ perpetuum sanguinis motum in circulo fieri pulsu cordis? An? hoc gratia Nutritionis, an magis Conservationis sanguinis et Membrorum per infusionem calidam vicissimque sanguis calefaciens membra frigifactum a corde calefit." (Page 80.)

Sir E. Sieveking renders it:—

"W. H. By the structure of the heart it appears that the blood is continually transferred through the lungs to the aorta—as by the two clacks of the water ram for raising water. It is shown by ligature that there is a perpetual motion of the blood from the arteries to veins. Whence Δ it is demonstrated that there is a perpetual motion of the blood in a circle, effected by the beat of the heart. Query: Is this for the sake of nutrition, or rather for the preservation of the blood and the members by the infusion of heat; the blood cooled by warming the members being warmed in turn by the heart?"

Here is the promise; the "Exercitatio anatomica de motu

cordis et sanguinis in animalibus" of the year 1628 is its fulfilment. Well may the editors declare, "The manuscript is to be regarded with veneration as one of the most precious of the archives of English science." It is but justice to add that the form and style in which it is presented are creditable to everyone concerned in its production—to the College, the editors, the printers, and the publishers.

Might we suggest that, as the authorities of the Royal College of Physicians and of the Royal College of Surgeons have purchased or guaranteed the cost of two hundred copies, it would be a useful and graceful act to present a copy to the library of every medical school in England.

Neurectasy: the Bradshawe Lecture of 1883. By JOHN MARSHALL, F.R.S. London: Smith, Elder, and Co. 1887.

IT is with much pleasure that we announce the new edition of Mr. Marshall's Bradshawe Lecture, to which is appended by the author, and dated March, 1887, an appendix, and twelve illustrations by Mr. Victor Horsley. To the last-named gentleman medical and physiological science is indebted for the discovery of the nervi nervorum. Figures 8 and 9 represent longitudinal sections of human nerve stained with osmic acid, drawn by Mr. Horsley. The first figure shows a branching nervus vasis, improperly described by Sappey and Krause as a nervus nervi accompanying a small bloodvessel. The second figure shows two true nervi nervorum arising from a branch of a primitive bundle, and running onward in the epineurium, doubtless to end in a tactile corpuscle or sensory nerve ending. Mr. Marshall says that Mr. Horsley "has proved beyond doubt the existence of sensory nervi nervorum, so that the conjecture I offered in my lecture on the existence of such nerves, and their relation to certain neuralgic pains, may now be regarded as having been completely verified." We may give Mr. Marshall's conclusions as to the practice of neurectasy or nerve stretching in his own words: "As regards its severity and its therapeutical results, nerve stretching may, speaking generally, be said to occupy an intermediate position between neurotomy and neurectomy, being more complicated in its effects on a nerve and more efficacious as a means of treatment than the former, but less decided and less radical than the latter. This general statement justifies the opinion that, as a rule, nerve stretching should be tried in a given case, if possible, before neurectomy; it nevertheless demands some further qualifications..... It is not only useless, but it is dangerous, and should be prohibited in all cases of serious central disease, such as confirmed ataxy, myelitis, fully established tetanus, pure epilepsy, and paralysis agitans. In reflex forms of epilepsy, in an ascending neuritis bringing about epileptiform seizures, in the early stages of a distinctly traumatic tetanus, provided that in any of these cases the peripheral source of irritation can be clearly localised and the affected nerve or nerves be accurately defined, nerve stretching may be serviceable, if employed soon enough." In peripheral disturbances of sensibility and motility the operation is certainly beneficial, but it appears to be less successful in spasmodic than in sensory or purely neuralgic peripheral disorders.

Analytical Records.

COCA WINE. (FOR FATIGUE OF MIND OR BODY.)

(ARMBRECHT, NELSON, & CO., DUKE-STREET, GROSVENOR-SQUARE, LONDON.)

THREE samples of this wine have been examined by us. One was sparkling, and had the flavour of a fairly good dry champagne; another was a Burgundy, and the third a Madeira. By analysis we easily isolated the cocaine, showing that the wine is really prepared with active leaves of the well-known *Erythroxylon coca*. Various statements of its value have been made, one of its strongest supporters being no less an authority than Sir R. Christison, who asserted from his own experience that its effect in removing physical exhaustion is remarkable.

ANTISEPTIC WALL PAPER.

(SINCLAIR & BROWN, VIRGINIA-STREET, GLASGOW.)

This paper is described as containing an antiseptic compound which is calculated to destroy the activity of infective matters upon the walls of dwellings. We separated the antiseptic, which has but little odour, and can therefore confirm the main statement of the inventors. There is merit in the idea, and we hope that experience will demonstrate the utility of the invention.

DE MIEL'S PERFECT HEALTH BISCUITS.

(THE INTERNATIONAL PATENTS ASSOCIATION, NICHOLAS-LANE, LONDON.)

These biscuits are well made from genuine wheat flour. The sample examined by us contained 6·33 per cent. ash, of which the greater part consisted of phosphates. We failed to find fluorine. They are very good biscuits, but we cannot see that they present any feature of novelty.

CARNRICK'S LIQUID PEPTONOIDS: CONCENTRATED BEEF AND MILK, WITH GLUTEN, PERFECTLY DIGESTED.

(THE MALTINE MANUFACTURING COMPANY, LIMITED.)

This is a clear, faintly acid liquid, which mixes easily with water. It yields a white precipitate of phosphate with ammonia, but is unchanged by acetic acid even on boiling. On distillation a liquid smelling like oil of cloves and containing some alcohol is obtained. When evaporated a great deal of syrupy residue is left which contains much nitrogen, and on ignition exhales an odour like burnt bread and leaves a white ash in which a large quantity of phosphate is found. We consider the preparation to be a very valuable condensed food.

CARNRICK'S PEPTONOIDS: WINE AND IRON. COMBINATION WITH PYROPHOSPHATE OF IRON IN BEST SHERRY WINE.

(THE MALTINE MANUFACTURING COMPANY, LIMITED.)

The basis of this preparation resembles the last, and is probably identical with it. It is a clear and agreeable wine, which mixes freely with water, is not precipitated by acetic acid even on boiling, but yields a distinct precipitate with ammonia. The iron is readily found by ordinary methods. It is a very powerful and agreeable tonic and stimulant.

EAUX MINÉRALES NATURELLES DE VALS: ST. JEAN.

(W. BEST & SONS, HENRIETTA-STREET.)

This is a very interesting natural water. The sample we have examined contained 219·5 grains per gallon of solid matter. It is an aerated water, and its chief constituents are the bicarbonates of sodium, potassium, lithium, calcium, and magnesium. Sulphates and chlorides are present in small quantities, and iodine in very notable quantity. All these we have found by analysis. The flavour of the water is agreeable, but there seems to be somewhat more organic matter than is desirable. Close attention should be bestowed upon the surroundings of the spring for some dark flakes were found in suspension in one sample, which were at least unattractive.

OZONE PAPER. (FOR THE IMMEDIATE RELIEF OF ASTHMA, CHRONIC BRONCHITIS, AND BRONCHITIS-ASTHMA.)

(R. HUGGINS, 199, STRAND, LONDON.)

These papers, in which chlorate of potassium is readily detected, deflagrate readily when ignited, and are very convenient. All our readers know how valuable the remedy is in certain cases. We think, however, the title requires some qualification.

SUNLIGHT SOAP.

(LEVER BROTHERS.)

This is a good neutral soap, which gives a perfectly clear solution with water, and yields an excellent lather in cold water. We found no caustic alkali in it, but some glycerine, which is an improvement. It is soft and pleasant in use. The pamphlet which accompanies the soap contains some excellent directions for washing in lukewarm water. If laundresses would only follow them, they would save themselves labour, and the goods would last much longer.

THE LANCET.

LONDON: SATURDAY, JUNE 11, 1887.

RATHER more than two years ago we urged upon the Government the appointment of a Royal Commission to inquire into the subject of over-pressure in elementary schools. After a year's delay the Commission issued directed the Commissioners to inquire not only into over-pressure, but generally "into the working of the Elementary Education Acts (England and Wales)," and the first instalment of the report appeared last year. The evidence then published, however, was chiefly collected from official witnesses, and was directed rather to inquiries into the working of the law and the efficiency of the existing machinery than to the discovery of over-pressure, and of the causes to which it might be due. On these points the public has had to wait for the second report, which was issued only at the end of last week. The witnesses whose evidence is here collected are for the most part teachers and managers in actual and daily contact with the children of the schools, from whom, therefore, the most important facts respecting over-pressure might be elicited, and to whose testimony accordingly the public will look with the liveliest interest for information on this profoundly important subject.

Upon the preliminary question, whether over-pressure does exist at the present moment, the opinion of the great majority of the witnesses was unmistakably that the fact is so. Out of forty-two who were interrogated on the point, twenty-six said distinctly "Yes," eleven said more or less distinctly "No," and five answered equivocally. Upon the whole, therefore, there was a strong preponderance of opinion in favour of the affirmative view, and in fact the set of opinion was even more distinctly in this direction than this mere summary analysis would indicate. For in most cases "No" meant only that instances of over-pressure had not come under the witness's own observation, and they do not in the least, therefore, conflict with the "Yes" of other witnesses whose less happy experience had made them acquainted with over-pressure, occasionally in very grievous measure. It never, of course, has been suggested that over-pressure existed in every school, and it is only necessary to recall the guarded language used by Sir J. CRICHTON BROWNE in 1885 to perceive that the net result of the opinions now collected is to establish to the letter what he then said. His conclusion was that "46 per cent. of the children attending elementary schools in the poorer districts of London suffer at certain seasons from habitual headache," in part attributable to over-pressure in the course of their education. No doubt the public attention was largely directed, in the discussion which ensued, upon those extreme cases in which nervous disorders, originated or promoted by the strain of education, had resulted actually in death. But these cases are obviously exceptional. The mischief, more serious in the aggregate than these occasional instances of entire collapse, against which it is especially necessary for the directors of juvenile education to be upon their guard is manifested rather by the slighter ailments, which are conveniently grouped under the symptom of habitual headache.

The evil having been thus clearly indicated, it might have been expected, perhaps, that the Commissioners would be careful to make a large collection of facts, from which any competent person might draw his own conclusions. This, however, they have, strangely enough, entirely failed to do. In view of the remarkable deficiencies of the report in this respect, we can but regret that no medical man was included in the Commission. As matters stood, there does not seem to have been anybody engaged about the inquiry who could indicate to the witnesses what were the specific points and special symptoms to which they might most usefully speak. The question was generally put in some such form as this: "Do you think there is any over-pressure in such and such a school?" It is obvious that the answer to such a question would depend quite as much on the witness as on the facts. The inquiry, as we think, should have been conducted in a wholly different manner. Questions suggested by medical experience would no doubt have revealed the fact that many of the ladies and gentlemen who expressed to the Commissioners very decided opinions had no adequate foundation for their views, and, on the other hand, they would have elicited a large body of facts which are to this moment undisclosed. How large and how valuable these facts would have been, if only the Commissioners had known how to set about collecting them, may be gathered from one or two observations which fell in the course of the inquiry from some exceptionally clear-headed and well-informed witnesses. One gentleman, for instance, a manager of a village school in Sussex, found occasion, when replying to the question "How do you define 'over-pressure?'" to observe "Before every examination I hear complaints from parents of children talking in their sleep, or that they cannot sleep, or that they walk in their sleep ..... but then I must say that in my own school the children are all excessively anxious individually to pass; they take a very desperate interest in it, and it is considered a direful disgrace to the whole family if they make a failure, and they never hear the last of it." Another, the vicar of Isleworth, said: "I saw a new form of it [over-pressure] the other day. I heard of some girls who did not come in the afternoon because they were so pressed in the morning..... Their parents ..... have been in in the habit, when their children came home tired after morning work, of keeping them away from school in the afternoon.' Even in these instances the inquiry was not followed up, and the witnesses were not asked to indicate the actual or proportional number of the children to whom their remarks applied. This is much to be regretted; yet, imperfect as they are, a handful of such facts is worth a houseful of generalised statements and mere expressions of opinion. We are sorry to add that it is to this latter category that almost the whole of the evidence in this branch of their inquiry collected by the Royal Commissioners must be referred.

Upon the whole, then, the report of the Royal Commission is a distinctly disappointing document. Much very valuable matter has no doubt been put together, but upon the important question in which the medical profession is chiefly interested the result attained is almost a cipher, and the feeling forces itself upon us that a splendid opportunity of

collecting facts has been sadly wasted, for want, not of will, but of scientific qualifications on the part of the Commissioners engaged in the inquiry.

WE have on two recent occasions drawn attention to the question of the spread of infection through the agency of rags, and we have now before us a further report from the medical department of the Local Government Board, in which the occasion of a small-pox prevalence in connexion with some paper-mills at Ivybridge in South Devon is taken to deal in a somewhat exhaustive manner with the whole subject and with its treatment in this and in foreign countries. We do not propose to discuss that portion of Dr. PARSONS' report which deals with this special small-pox occurrence; but as regards general considerations as to rag infection at paper-mills, we may state that although cases of infection by means of rags do occasionally occur, yet they are, considering all the circumstances, only of infrequent occurrence. This infrequency is to some extent due to the fact that it is essentially the white rags, from which the finer class of paper is made, that are most risky, because they have formed articles of underclothing, &c., which come into actual contact with the bodies of persons. The great body of rags are coloured ones, and with these the amount of manipulation needed is much less than with those required for the superior class of manufacture. Then, again, in this country at least, the 126th section of the Public Health Act does deter people to some extent from trafficking in rags known to be infected; and, apart from the law as to the matter, a large number of people take certain precautions in their dealings with rags which have run the risk of being infected. Rags before reaching paper-mills have also been several times sorted and exposed, and it is often some months before they reach the cutter's hands. And, lastly, it is only those who are engaged in dealing with rags during the preliminary stages of the manufacture that run much risk; the boiling and chemical treatment to which rags are submitted after cutting must practically render them innocuous.

Reviewing all the available precautions against infection by means of rags, Dr. PARSONS lays down the following rules. Against small-pox, vaccination and revaccination should, in the main, be trusted to. Since infection doubtless takes place mostly as the result of inhalation of "dust" during the processes of manipulation and cutting, such dust often consisting of matters which have dried into and on the surface of the rags, ventilation is an important consideration, and fans to draw off the dust would be eminently useful. Where it is known that disease prevails in a locality, rags from that place should, if possible, be prohibited from importation. This is done in the case of cholera, but it is hardly practicable with our current infectious fevers. Finally, disinfection of rags should be aimed at. The processes that seem at all applicable are: (1) Chemical disinfection by gases, as sulphurous acid or chlorine; but unfortunately the gases would not penetrate bundles or heaps of rags. (2) Disinfection by heat, especially in the form of steam. This latter system works well, and a report made to Dr. SMITH of New York is quoted as to the opinion of an experienced rag inspector, to the effect that the market value of the rags is in no way impaired by the process. The difficulty of dealing with rags by disinfection is to determine who is to bear the expense of it. The original responsibility rests on either the person who sells the rags, or the rag merchant, who buys them regardless of the source whence they come; and, as Dr. PARSONS says, it would hardly seem fair to require paper manufacturers to atone for the omission of others by a comparatively expensive process of disinfection. The question may be raised in future sanitary legislation, and it may be that the public authorities will, in the interest of the communities they represent, themselves undertake the task of disinfecting such articles as rags. One of the most valuable parts of Dr. PARSONS' report is contained in a series of Appendices giving a summary of the principal outbreaks at paper mills, and an abstract of information obtained through the Foreign Office as to the measures taken in a large number of foreign countries with regard to this question of rag infection. For these reasons alone we are glad to see that the report is placed on sale.[1]

No less than four Bills having for their ostensible object the repression of adulteration are now before Parliament. For the purpose of scientific argument these Bills may, however, be reduced to two, of which one deals with beer and one with butter. There are, it is true, two similar Beer Bills and two similar Butter Bills, but in each case the differences are of minor importance. In the Beer Bills a definition is attempted which would render the punishment of adulteration a simple matter if the offence were proved. Adulterated beer is "any beer brewed from or containing any ingredients other than hops or ["and" in one of the Bills] malt from barley." If any other ingredients are used by the brewer or publican, "conspicuous notice" must be given to the public in the bar or other place where the beer is sold or offered for sale. This is simple enough, and would evidently prohibit the sale without special description of all beer in which sugar, rice, or maize had been used instead of, or in addition to, malt; or any hop substitute, such as quassia, instead of, or in addition to, hops. This somewhat pedantic phraseology is essential to a comprehension of the difficulties with which the question is surrounded.

In the other Bills which propose to deal with butter, a definition which in this case is attended with less difficulty is enunciated. The definition differs slightly in the two Bills, but, taking the wider and more sensible, it is "the substance usually known as butter, made exclusively from milk or cream, or both, with common salt, and with or without additional colouring matter." The only adulterant named or aimed at in either of the Bills is margarine or oleomargarine, which in the better drawn of the two Bills is defined to include "all substances, whether compounds or otherwise, prepared in imitation of butter, and whether mixed with butter or not." The Bill in either form would require considerable revision before it could pass into law, but, as its objects are simple and easily attainable, it may for the moment be postponed, although it will be necessary to discuss it at a later stage.

With these important proposals before Parliament, it is not surprising that the small but vigorous Society of Public

[1] Eyre and Spottiswoode, East Harding-street, E.C.; Adam and Chas. Black, Edinburgh; Hodges, Figgis, and Co., Dublin.

Analysts, which includes among its members nearly all the best public analysts of Great Britain, should have taken prompt action and summoned a conference to consider the general questions involved. The meeting on May 11th was, in fact, a conference. Several letters from absent members and some original papers were read, and a good discussion took place, which turned almost exclusively upon the use and detection of hop substitutes. The only notable exception was the side issue raised by Mr. OTTO HEHNER as to the relative positions which public analysts and the Government chemists of Somerset House would occupy if any of the new Bills passed into law. It is well known that ever since the passing of the Food and Drugs Act, 1875, some jealousy of the powers then entrusted to the Somerset House chemists has existed among the public analysts, who have fancied themselves slighted by the appointment of an independent court of inquiry. Repeated complaints, sometimes couched in language of unnecessary acrimony, have been made of the conduct of the Government chemists, and in a recent letter to an evening contemporary, Mr. ALLEN of Sheffield, an able chemist who holds the position of President of the Society of Public Analysts, has brought charges against the official chemists which are, in part at any rate, charges of incompetency. To us as to the public, the question is one of subordinate importance. Provided that adulteration is exposed and properly punished, we care very little whether the work is done by the officers of a public department or by analysts appointed by local authorities. On the whole, we should, if suitable modifications were introduced, prefer the present system, because we believe it might easily be made efficient and satisfactory. No one can assert that it is just now either the one or the other. The Government chemists laid it down as their line of duty that they would never certify that a sample was adulterated unless their own analyses proved the adulteration. To that line they have most properly adhered. Doubtless they have made mistakes at times, but we do not think they have ever caused the punishment of an innocent man; and it surely cannot be denied that in the investigation of a charge of fraud the accused ought to be held to be innocent until he is proved to be guilty. In regard to this matter some of Mr. ALLEN'S complaints seem somewhat unreasonable. Thus, speaking of cases of doubt, he says, "If they cannot speak with certainty, they might speak of probabilities." We can but ask what would be the use of that? FARCY a toxicologist employed to test for arsenic reporting that he could not find the poison, but that probably it might be there!

We may now consider the proposed alterations of the law in regard to beer. It must be premised that some very important alterations have already been effected by the Customs and Inland Revenue Act of 1885, which is worked by the Inland Revenue Department. This Act is in some respects extremely vague, and is apparently intended, as so many others have been, mainly for the protection of the revenue. Its definition of beer is about as loose as possible. Beer is a liquor "which is made or sold as a description of beer, or as a substitute for beer, and which on analysis of a sample thereof shall be found to contain more than 2 per cent. of proof spirit." It would seem as though adulteration after such a definition was an almost impossible offence—except, of course, adulteration with noxious ingredients,—and yet the Act specifically and by name prohibits adulteration, and many convictions have already been obtained under it. As Mr. HEHNER puts it, "beer, as permitted to be brewed, is a nondescript article, of no particular composition and of no particular strength." And yet its adulteration is made a penal matter, and it has even been held to be an offence to blend one kind of beer with another, an operation which is practised every day with whiskies. No doubt the law is intelligible to the lawyer, but to the layman it is certainly puzzling.

In strong contrast with the vagueness of the Act of 1885 stand the Beer Bills now before Parliament, the hard and simple definitions of which we have already noticed. The liquor brewed with hops and malt from barley only is in these Bills defined to be pure beer. No other beer is genuine. It may, indeed, be sold, but only with a sufficient warning to the purchaser. This last proviso is tantamount to an admission that beer may be innocuous although other ingredients than barley-malt and hops have been used in its manufacture, for surely no one would propose to legalise the sale under any conditions of a noxious beverage. Looking closely into the matter, we think it cannot be denied that the cry for pure beer is mainly a political cry. It is not pretended that malt substitutes or hop substitutes are necessarily or even commonly injurious to health. Other grains besides barley can be added to malt in brewing: notably rice, which, as it contains less nitrogen, often improves the beer. Glucose also, which is, after all, but an altered form of starch, may, when of good quality, be safely added to the wort before fermentation. So with the hop substitutes. It was stated by all speakers at the recent conference that quassia, gentian, chamomile, and chiretta were not inferior to hop as vegetable bitters. Why, then, should these substitutes for malt or hops be prohibited? It is admitted that they are harmless; the fact that they are used shows that they are cheap; and as for the flavour, the public is the best judge of that. The beer-drinker who wants "pure beer" can always ask for some well-known brand. If he gets an inferior article he is defrauded; the fraud should be severely punished, and doubtless the great brewers would be willing enough to help the purchaser. But if he simply asks for a glass of ale, it is enough that he should be protected from drinking a noxious beverage. If he does not like it he must go somewhere else. Many branches of this important subject still require discussion, but they must be reserved for a future article.

THE Council of the Royal Agricultural Society had last week under discussion Professor AXE'S report on a disease in cows in its relation to the scarlatina epidemic in the north-west district of London, and it was resolved to address a letter to the Privy Council, asking that the Agricultural Department "should undertake further investigations into the subject, with a view to making it clear whether it was possible that scarlatina could, as alleged, be communicated direct from the milk of diseased cows." The President, Lord EGERTON of Tatton, suggested that efforts should be made to determine whether the cow could suffer from scarlet fever; and Mr. COPE, veterinary inspector of the Agricultural Department, after referring to the evidence Dr. KLEIN and Professor AXE had adduced, stated that when an opportunity was afforded by an outbreak of "this

eruptive disease appearing among the cows of this country," the Agricultural Department had instructions from the Government to make any inquiries that might be necessary. In the report of the proceedings we note the words "this disease," as if it were an assured fact that the assumption that the Hendon cows suffered from the same malady as certain other herds, the milk of which did not give scarlet fever was correct. It deserves to be borne in mind that Professor AXE, after visiting the Hendon cows, addressed a letter to the British Dairy Farmers' Association, in which he stated that at the time of his visit nothing of the disease remained but a few scabs and superficial ulcers on the teats to mark its former presence; he was therefore "quite unable to say what may have been its precise nature." We refer to this because there are certainly several vesicular diseases of the udder of the cow which do not appear to be sufficiently differentiated, and if the Agricultural Department are guided in their selection of the malady they propose to study by the description Professor AXE has published of a disease the precise nature of which is unknown to him, they will not improbably fall into serious error, which in its results would be disastrous to human life. If the Agricultural Department make it their business to study the natural history of all vesicular diseases which affect the udder of the cow, they will undertake a valuable piece of work, and one which would not be less useful to the agriculturist than to the milk consumer. A lesson to be learnt from recent investigations is the need for the further study of some animal diseases in the interests of the public health, and for this purpose the staff of the Local Government Board should be strengthened by the addition of a skilled veterinary surgeon, and the Board would be doing good service in undertaking the clinical study of these maladies.

THE name of the month of June in the year of Her Majesty's Jubilee sounds sweet, and we are glad to think that it even more than usually suggests many facts which tend to make the human mind less careworn and more happy. Some great sicknesses have gone out of human knowledge. We know them only as we know stage coaches, and not so well. Others have become less terrible. A case of typhus was received into a great hospital in the centre of London a few months ago, and it was referred to and treated as a rarity. The Registrar-General has been telling us that in only one week out of the last five weeks has there been a death from small-pox in London, and that in twenty-five or more out of twenty-eight of the big towns there has not been one such death. The disease is so completely under human control that some thoughtless people have come to disparage the very discovery which protects them. These are very significant facts. But let nobody imagine that our Hospitals are a superfluity yet. The millennium has not arrived. The condition of the people will have to be very different from what it is before hospitals can be dispensed with. Disease still counts for much in the life of the working classes. Defective food, inadequate clothing, mental and physical depression from want of work, poor and insanitary homes, create much and many kinds of sickness which it is hopeless to relieve at home. In addition to this, there are the accidents which befall working men in larger proportion than in other classes—fractures, burns, sprains, hernia, wounds,—for the treatment of which there is simply no convenience in a poor man's house. Let any of the comfortable classes remember what grave sickness has meant in their experience or in that of their relatives: the best advice, a variety of opinions—all of them of the best,—a skilled nurse, choice and convenient food, and, when the worst was over and hope again in the ascendant, a reviving holiday at the seaside or the country. Such amenities deprive even sickness of half its terrors. The human mind in its divine moods has devised an institution which goes far to put such amenities within the reach of the poorest. The institution in question is no other than a Hospital, where poverty and sickness are the only conditions of entrance, and where the latest discoveries of medicine and the last improvements in nursing, food, and appliances can be had, and in some cases the patient can be passed on even to a convalescent home. This is the very crown of charities, which no civilisation yet reached supersedes, and for the absence or starving of which no adequate excuse can be formulated by a Christian or, indeed, by any other community. We shall not say more to-day. The following meetings are to be held in every part of London in the coming week preparatory to Hospital Sunday:—On Monday, the 13th, at 8.30 P.M., Newington Parish Mission Hall, Kennington-road, S.E.; on Tuesday, at 3 P.M., Mansion-house, E.C.; on Wednesday, at 8 P.M., St. Andrew's Hall, Newman-street, W.; on Thursday, at 4 P.M., Kensington Town Hall; on the same day, at 8 P.M., Wellington Hall, Islington; on Friday, at 4 P.M., Westminster Town Hall; on the same day, at 8 P.M., Stratford Town Hall; on Saturday, at 3 P.M., the People's Palace, Mile-end-road. It is devoutly to be hoped that no sensational politics and no exceptional excitement will interfere to prevent a full appreciation of the wants of these great but quiet institutions, and of the strong arguments which appeal to the favourable consideration of the highest authorities in Church and State, including Lord SALISBURY, who, to his great credit, has engaged to speak at the Mansion House on Tuesday in this cause. We shall, as is our custom, refer at greater length in our next issue to the unparalleled claims our hospitals have on "sweet charity."

Annotations.

"Ne quid nimis."

THE CONTAGIUM OF SCARLET FEVER: JAMIESON AND EDINGTON'S RESEARCHES.

THE remarkable chain of evidence whereby Dr. Klein has been enabled to substantiate the results of Mr. Power's investigation upon the transmission of scarlet fever direct to man from the cow seems to leave little room for scepticism that in the streptococcus met with by Dr. Klein we have the effective agent in the etiology of this disease; and, scanty as prior observations are, imperfect as many of them have been, it is noteworthy that hitherto the scarlatinal microbe has been described as a micrococcus. Coze and Feltz found micrococci in scarlatinal blood; Cornil in the urine in scarlatinal nephritis; Babes describes streptococci in post-scarlatinal inflammatory products; and Pohl-Pincus found "very minute micrococci adhering to the scales of

the desquamating epidermis in scarlatina" (von Klein: "Micro-organisms," third edition). The isolation, cultivation, and successful inoculations practised by Klein, however, far outweigh all such partial observations. But, as in the case of diphtheria, so here, it would seem that other observers have arrived at the conclusion that the scarlatinal microbe is a bacillus, and not a micrococcus. Drs. Jamieson and Edington of Edinburgh University have completed a series of observations, which arrive at this result: their plan of procedure being to examine the blood of scarlet fever patients as early as possible, to sterilise an area of skin and protect it from contamination till desquamation occurs, and then to examine the desquamated epithelia for organisms. They found a bacillus in each of these media, and succeeded in reproducing a disease like scarlet fever in calves and other animals inoculated with pure cultivations of this bacillus. Further tests by examination of the blood of the inoculated animals and pure cultivations therefrom also yielded positive results. Until the details of their research are published it would not be fitting to attempt any critical comparison between them and those obtained by Dr. Klein. The fact that the blood of scarlatinal patients has been frequently examined without result makes it at first sight more probable that the minuter organism has been overlooked; but much also depends upon the technical skill of the observer, and bacteriological methods are daily being perfected. It is curious that a disease so obviously contagious as scarlet fever should hitherto have baffled the attempts made to isolate its virus, and that almost simultaneously investigations should be in progress with this object, and with such apparently conflicting results.

DEATHS IN THE MIDST OF FIRES.

THE usual outburst of emotional carefulness has been called forth by the catastrophe at the Opéra Comique in Paris. The deplorable destruction of that place of entertainment, with the serious loss of life it involved, must be regarded as a *catastrophe*, for the preceding history of the construction and general arrangements of the Opéra Comique culminates methodically in what seems to have been pretty generally anticipated and has at last occurred. It is only natural that we as a people, and particularly the people of London, should be agitated to a considerable extent by the calamity. We cannot be ignorant of the dangers that beset our own enjoyment of theatrical performances, and which indeed, as is beginning to be recognised, threaten the visitors to Exeter Hall and the worshippers in crowded churches or chapels scarcely less urgently than playgoers. Already the excitement, which has been less than usual amongst ourselves, is subsiding, and in another week or two the affair will, doubtless, be forgotten, except by those who have been personally affected by it. Meanwhile, it may be well to point out that, although the idea of being "burned to death" in a crowded place of assembly is a very hideous one, in all probability the experience is, like most other modes of exit from this wonderful life of ours, less agonising than it appears. Practically, the burning seldom occurs in these cases until after death, or, at least, insensibility to pain, has been produced. Except under very peculiar conditions the victim is asphyxiated—that is, rendered faint and pulseless—by the carbonic acid gas or by the carbonic oxide, before the fire reaches his body. Anyone who has been in a burning house will know that the heated and smoky atmosphere speedily induces a feeling of powerlessness and at the same time of indifference to what is going on around. It is generally this stupefying of the cerebrum, with subsequent paralysis of the nerve centres, that prevents judicious means being taken for escape; and unless the sufferer has the presence of mind to stoop almost to the ground so as to keep his head below the level of the smoke, he is almost sure to sink without much feeling in the midst of the fire instead of pushing forward. It is well to know and bear in mind this fact, both for the sake of precaution, and to mitigate some of the acute grief which must be experienced at the loss of friends by fires such as that which has just occurred in Paris. We do not, of course, deny that there may in some exceptional instances be a certain amount of suffering in the case of persons so dying, but we doubt whether the proportionate amount of pain in deaths amidst fires is actually greater than that endured by those who die from ordinary disease. There is the element of time to be considered. In place of days, or perhaps weeks, of pain, the whole experience is over in a few minutes at most, without either expectant misery or prolonged consciousness of the approaching end, and, so far as science can determine, it is by no means probable that the intensity of the agony is greater than that of an ordinary death; possibly, even, owing to the rapid generation of the gases, it may be less. This is a view of the case on which it is more pleasant to dwell than that which thrusts itself immediately on the attention when such appalling events as those to which we refer are brought under notice. If the facts were present to the minds of those who now madly rush out of a burning house, to the very great diminution of their chances of escape, perhaps they would induce a little more composure, and thus help to render the loss of life less extensive.

THE METROPOLITAN ASSOCIATION'S IMPROVED DWELLINGS.

THE Metropolitan Association for Improving the Dwellings of the Industrious Classes has just issued its forty-third annual report, for presentation to the shareholders at the approaching annual meeting. This Association has the distinction of having led the way in the invaluable movement for improving the dwellings of the working classes, which is slowly but surely effecting incalculable benefit on the housing and sanitary and social condition of the London poor. Compared with the operations of the Peabody Trust, and one or two of the larger companies carrying on this work, those of the Metropolitan Association are moderate in extent, but the report tells us that the buildings of the Association, situated in fourteen localities, had, during the year ending with March last, an average population of 6115 persons. This was rather less than a third of the population of the Peabody buildings at the end of last year. It is stated that 97 deaths were recorded in these buildings during the year, equal to 15·9 per 1000 of the population, which the report points out is 4 per 1000 below the general rate for the whole metropolis. It must, however, be remembered that no correction is made for deaths recorded in the workhouses, hospitals, and lunatic asylums of the metropolis, a proportion of which should be debited to this population. The deaths in public institutions in London during last year were equal to 4·1 per 1000 of the population. If we debit the Metropolitan Association Dwellings with their full share of these deaths (probably in excess of the true proportion), the corrected death-rate would but slightly exceed the general rate in London, and the rate in the Peabody Buildings last year. This corrected rate would, moreover, still be a most satisfactorily low rate for a working-class population such as that which inhabits both the Peabody and Metropolitan Association Improved Dwellings. The Metropolitan Association report also states that the rate of infant mortality in those dwellings was equal to 164 per 1000 of the registered births, against 159 in the whole of London and 149 in the Peabody Buildings. It is worthy of note, however, that the birth-rate in the Metropolitan Association Dwellings is stated to have been only 32·9, whereas in the Peabody Buildings it was 42·4.

Unless the age distribution of the Metropolitan Association population differs very remarkably from that of the Peabody population, it appears probable that the birth-rate in the former is understated, the effect of which would be to overstate the rate of infant mortality. After full allowance for all possible defects in the vital statistics of the Metropolitan Association's report, there can be no doubt of the beneficial effects of these improved dwellings upon the health of their population, or of the important reduction in the death-rate of many parts of London that would result from the further extension of the operations of this and of other companies for the improvement of the dwellings of the working classes.

THE BOARDING OUT OF PAUPER CHILDREN.

THE case of the St. Pancras children boarded out at Denmead does not greatly alter the public opinion as to the merits of the boarding-out system. In some respects it confirms the belief that the system is preferable to that of huge pauper schools. The report of Mr. Clarke, the medical officer of the Leavesden Schools, who was sent by the guardians to examine the children and inspect the homes in which they lived, leaves on the whole a favourable impression. The children were better than when they went to the country, and they were happier—at least they had no wish to leave. They one and all sa'd most distinctly they would not like to return. So strong a human liking for them had taken possession of some of the foster-parents that they refused to give the children up, even if the guardians should withdraw the 4*s.* a week for their support. Some of the houses were clean and comfortable and all that could be desired. There was, it is true, another side to the picture. Some of the foster-parents were old and infirm or in ill-health; one in particular was dirty; another kept a sort of old-clothes shop. The sleeping accommodation in several homes was insufficient; while in seven of the ten homes there were more than two children boarded out—and, it appeared, somewhat promiscuously,—and some of the children looked dirty and neglected. On the top of these drawbacks Mr. Clarke adds: "notwithstanding all this, the children had improved since they came to Denmead." The fact appears to be that there has been a want of care in the selection of fit houses and foster-parents, and that the local committee of supervision has been a little too formal in its duties and trusted too implicitly to the foster-parents. One other point strikes us: that the sum allowed is not such as can compensate the foster-parents for adequate treatment of the children.

MEDICAL OBJECTIONS TO VACCINATION.

UNDER this heading a contemporary publishes a letter signed by persons holding medical qualifications, in which it is argued that there is no ground for claiming that the reduction in the death-rate from small-pox is due to vaccination, because leprosy has also disappeared from this country without any special means having been resorted to for its prevention. The writers omit to mention that the evidence with regard to vaccination is based upon the behaviour of small-pox among vaccinated and unvaccinated persons respectively, that the latter suffer from small-pox as severely and as fatally as heretofore when they are attacked, and that it is only the unvaccinated who enjoy the benefits of more recent times. What are we to think of persons with medical qualifications who make a statement such as that to which we refer to a public consisting of many who have no means of judging for themselves, and who are likely enough to be misled by such teaching? For the ignorant we can feel regret; but a terrible responsibility devolves upon all who by mistaken advice may—unintentionally of course—be the means of introducing disease and death in many a family.

GYMNASTICS AT SCHOOL.

THE honorary secretary of the National Physical Recreation Society gave some interesting evidence lately before the Royal Commission on Elementary Education, and it had the advantage over much of the other matter collected by that body of being statistical in large measure. Speaking of the work done by the Liverpool Gymnasium for the treatment of spinal curvature, he stated that some 3000 cases had come under his own observation there, of which 2500 were cases of children between the ages of eight and fourteen years, 2000 of these being girls. There can be no doubt, we think, that deficient physical exercise, if not the only or even perhaps chief cause of this very common deformity, is highly calculated to promote it; and, even apart from any specific evil, a well-considered and systematised plan of training for the muscles is undoubtedly a most valuable regimen, and eminently adapted to preserve and benefit the general health. But it is of the highest importance, in following out this object, to avoid pernicious exercises, which may do irreparable mischief to the growing organs and unbraced body of a child. The following instance is very much in point: "The care-taker commanded them all (like children of an elementary school) to keep their knees stiff and touch their toes with their hands, and while he kept them in that position he proceeded to give them an impromptu discourse upon the benefit of physical training. When the children rose up you could tell from the hectic colour of their cheeks that they were evidently suffering at that moment from palpitation of the heart caused by leaning down in this extraordinary position." Equally sound appears to us the following comparison between the horizontal and the parallel bars: "In the case of the horizontal bar, or anything pendent, children naturally jump up and get on with their hands together; that is a position of contraction; the chest is contracted and the shoulders brought forward, unless they have a very painstaking instructor, who will make them widen out their hands and change frequently. In the case of the parallel bars, the ordinary position of a child upon it causes expansion of the chest; the very movement of resting upon the parallel bars is one of expansion, without any teaching whatever."

"ACROMEGALY."

ANOTHER example of the curious and rare condition of acromegaly of which an account was first given by Dr. Marie (THE LANCET, 1886, vol. i., p. 1060) last year, has been recorded by Dr. Minkowski (*Berl. Klin. Woch.*, 1887, No. 21). The case occurred in the medical clinic at Konigsberg, the subject being a musician, thirty-eight years old, who for some years past had experienced a gradually increasing size of the hands and feet, so that he could no longer play the violin. The nose and ears also became thickened, and the whole form of the face altered. He had suffered much from headache, and his vision had become gradually impaired; he had also become somewhat deaf. He was a man of medium height. The hands were strikingly enlarged in width and thickness, the fingers especially, the thickening involving both bones and soft parts. There was no œdema. The forearm was disproportionately enlarged. A parallel increase in the size of the peripheral parts was seen in the lower limbs, where the leg and foot were greatly enlarged, as well as the individual toes, the great toe being "gigantic." The patella was notably enlarged. As to the face, the nose, lips, and chin were manifestly hypertrophied, the septum as well as the tip of the nose being much thickened. The lower jaw was thickened and projecting, the zygoma and the orbital margins prominent. The head had a long oval shape. The ears were large, and their cartilages thick. The eyes were prominent, the tongue was large, and the buccal mucous

membrane hypertrophied. The laryngeal cartilages were voluminous, the thyroid body apparently atrophied. The muscles were ill-developed. Intellect was normal, but hearing impaired, speech slow, and visual field contracted. Marie's case also had symptoms of polyuria and polydipsia, but otherwise resembled the present one. Dr. Minkowski refers to the opinion of Klebs, who had recorded one of the cases collected by Marie, that the condition was due to a morbid proclivity to excessive vascular development, affecting chiefly the peripheral parts. It is noted that in the cases as yet examined after death the pituitary body has been found much enlarged; in one case (Henrot's) it was of the size of a hen's egg; in another (Brigidi's) it had caused enlargement of the sella turcica and compression of the optic nerves. The thyroid has been found in some cases atrophied, in others greatly hypertrophied. One case has been recorded as myxœdema, but the resemblance between the two conditions is only superficial, the osseous changes and the absence of cutaneous lesion in acromegaly, together with the wholly different physiognomy, sufficiently marking the difference. In Virchow's leontiasis ossea there is no such disproportionate enlargement of the extremities, and in Paget's osteitis deformans the long bones and cranial bones are chiefly affected, whereas in acromegaly the facial and not the cranial bones are involved, and the distribution of the changes in the limbs is invariably symmetrical.

THE NATIONAL HEALTH SOCIETY.

THE fourteenth annual report of the National Health Society is published. The work of the Society consists chiefly in providing for the delivery of lectures on subjects more or less connected with personal and national health. Among the lecturers were Mr. Shirley Murphy, Mr. Malcolm Morris, Mr. Frederick Treves, Dr. Greenwood, and Dr. Barnard O'Connor. The last-named gentleman, at the request of Canon Cromwell, gave a course of lectures on the Laws of Health, at St. Mark's Training College, Chelsea, for the instruction of young men training for schoolmasters. The Society, whose office is at 44, Berners-street, is glad to receive applications for short courses of lectures for district visitors, mission women, cottage mothers, &c. We think such a society likely to do a great of deal good, if it keeps to sound lines and does not attempt too much.

THE CHILDREN'S FÊTE.

THE 21st of June will be marked by many noteworthy signs of rejoicing in different parts of the country. Perhaps none of them will afford Her Majesty a more appropriate tribute of congratulation on the completion of the fiftieth year of her reign than the colossal assemblage of London school children in Hyde-park. Of all the changes that have come to pass during that long and prosperous period, none is more significant of the growth of our national life or more full of hope than the formation of our system of State education. We therefore wish all success to the intended demonstration. If, at the same time, we point out some of the difficulties which belong to so great an undertaking, it is only because we desire to ensure its success, and to prevent the chance of regrettable consequences. The plan of transit may be safely left in the hands of those who will organise the practical details of the scheme. What chiefly concerns us is the condition and surroundings of the children. It is to be hoped that in making the selection of those who will attend the gathering due regard will be paid to the subject of health. Not prominence in classwork alone but fitness for the journey should be taken into consideration. Weather is an uncertainty which must also be reckoned with. These, perhaps, may seem to be mere commonplaces, though they are important trifles. Scarcely so obvious, but even more pressing, is the necessity that no child should atttend in the park about whom there lingers a trace of infectious disease. This year has seen an unusual prevalence of measles and whooping-cough among the urban poor. Is it necessary for us to add the caution that the person and home of each of this multitude of children should be certified as free from any taint of infection? It may prove calamitous for many of the children if this matter does not receive the strictest attention.

MEDICAL ASPECTS OF THE MISSION TO DEEP-SEA FISHERMEN.

THE annual meeting of the Mission to Deep-sea Fishermen was an interesting one from a medical and humanitarian point of view, Sir Andrew Clark occupying the chair, and addresses being given by him and by Mr. Frederick Treves, F.R.C.S., who had himself personally inspected the work in the North Sea and had seen the great need existing among the 1200 fishermen there for the medical and surgical aid now as far as possible supplied by the mission smacks, which are provided with a medicine chest and various surgical appliances, and which carry a skipper and seamen who have gone through a course of instruction by Dr. Schofield, so that a man who meets with a lacerated wound or a fracture of the arm whilst conveying fish boxes in a little boat from his smack to the steamer running between the fleet and Grimsby can be, if a mission smack is near, promptly and pretty efficiently treated. A great want, however, is still unsupplied, and that is a floating hospital, neither the mission nor the other smacks having berths suitable for sick or injured men. Another great advantage of the mission smacks is that they have to a large extent driven the "copers," with their vile and unwholesome spirits and tobacco, and their still more vile literature, off the seas, they themselves selling good tobacco, warm woollen mittens, "helmets," and other clothing, and pure healthy literature, but no alcoholic liquors. A magnificent gift of a steam yacht has just been received by the Deep Sea Mission. This will be just the thing for the work, and a few sick berths might well be fitted up in her. She might even "carry a surgeon," but unfortunately the society is so pressed for funds that it is quite uncertain whether the yacht can be even manned and put to sea.

ACUTE GRAVES' DISEASE.

AN apparently well-authenticated case of Graves' disease, having a total duration of six weeks, and accompanied by remarkable emaciation, is recorded by Dr. Michell Clarke in the *Bristol Medico-Chirurgical Journal*, No. 15. It was that of a girl, aged eighteen, a native and resident of Chepstow, whose family history was good, and who had always enjoyed perfect health till 1885, when she experienced headaches occasionally, with slight feeling of fulness at the throat; and again in June, 1886, during a menstrual period, violent palpitation, severe frontal headache, pain in the præcordial region, and nausea with vomiting in the morning; but this group of symptoms disappeared, and the next menstrual period was completed without the occurrence of any abnormal symptoms. She remained well until Aug. 4th, when the palpitation returned, and the symptoms of exophthalmic goitre appeared, together with a nasal voice, slight cough, and rapid emaciation. On admission, the notes show great mental excitability and slight choreiform movements of limbs. Von Graefe's symptom was well marked. Towards the end of the case diarrhœa and vomiting were remarkable symptoms. The patient died on Sept. 14th. Dr. Michell Clarke observed that the thymus

was very large, as in two instances of exophthalmic goitre recorded by Hilton Fagge; the liver and pancreas were very small; the thyroid very large; the exophthalmos had disappeared; microscopic sections of the central nervous system and the cervical sympathetic revealed nothing abnormal.

OVERLAIN CHILDREN.

WHEN a coroner tells us that he has observed more than 200 cases in which children have been overlain and suffocated by a parent, we are tempted to ask whether this accident has always resulted from mere carelessness. A misfortune so simple in its causation may doubtless easily happen in the overcrowded homes of the poor where a number of children are huddled into one or two small rooms. Nevertheless when one finds it repeats itself so frequently, and even occurs more than once in a single family, the conviction that there has been gross neglect cannot but carry with it some suspicion of design. Infantile insurances, and the poverty of hard times, are pressing inducements which might suffice to justify in the minds of unscrupulous parents the wilful contrivance of such an accident. Coroners and insurance companies alike will therefore do well to inquire with particular closeness into the details of any case of the kind which may come before them, and every mother who would merit the reputation of even ordinary care should take the advice of Dr. Danford Thomas and allow her infant a separate cot.

CATTLE DISEASES IN GREAT BRITAIN.

PROF. G. J. BROWN, in his annual report for the year 1886 of the Agricultural Department, Privy Council Office, states that the last reported outbreak of foot-and-mouth disease occurred in October, and that it may be concluded that the disease has ceased to exist in this country. Respecting pleuro-pneumonia the report is less encouraging, there being slightly fewer outbreaks in England than in 1885, but more cattle were attacked; whilst in Scotland the outbreaks extended in area, and the cattle attacked were more than twice as numerous as those affected in 1885. Many of these outbreaks were traceable to Irish cattle, and the subject of the possible conveyance of the disease from Ireland is being considered, as well as the measures to be taken to deal with it. Mr. Brown discusses the measures for the extinction of pleuro-pneumonia, and declares that nothing short of the stamping-out system is efficacious. Protective inoculation, which had been advocated in Scotland, is objectionable from the probability that infected cattle may be inoculated with great risk to the spread of the disease, and he states that no country has been yet successful in getting rid of pleuro-pneumonia by inoculation. Swine fever appears to have been very prevalent in various parts of the year, the variations being attributable more to the amount of trade carried on with these animals than to the enforcement of restrictive measures. This disease was made the subject of a Parliamentary report last year, one object being to aid in the discrimination of the disease from other diseases of swine; and experimental inquiry into protective inoculation is in progress, but it is pointed out that the ordinary methods of attenuation of virus could not be applicable, since it would be necessary to have the power to inoculate a herd from the infective matter of the first case arising in it. Perhaps the desired result might be attained by diluting the virus through admixture with certain chemical agents. Anthrax, which by order of Council was last year brought under the operation of the Act of 1878, forms the subject of some interesting paragraphs in the report. The wide prevalence abroad, especially in France, as compared with this country, is noted; and the possibility of its introduction through infected wools, skins, fodder, litter, and manure is illustrated by a reference to the occurrence of wool-sorters' disease. It is pointed out that it would be practically impossible to prevent the importation of infected wool. Anthrax is generally limited to the farm on which an outbreak occurs, and, owing to the rapidity with which it kills, nothing would be gained by adopting the stamping-out system with a view to its eradication. The importance of avoiding any effusion of blood of the diseased animals is emphasised, post-mortem examination being unnecessary for diagnosis, which can be at once effected by microscopic examination of a drop of blood. Protective inoculation has not been as yet needed in this country, but it is encouraging to learn that experiments are being made to test the value of certain chemical agents in modifying the activity of the virus or rendering the animal insusceptible to its influence.

THE CHURCH BELL GRIEVANCE.

WE are sorry to be unable to endorse the opinion that the question of church bells "is one for judicious compromise," though we agree that it "should be approached without anything like temper on either side." It is confessedly difficult, to the extent of being impossible, to preserve anything like equanimity when a dear friend has been seriously injured, perhaps hurried into a state of cerebral excitement which has ended in death, by the ringing of bells in churches. We cannot designate the church bell question one of nuisance; it is more than that, for direct injury is done; and, for ourselves, we should certainly advise practitioners who have patients suffering from this annoyance to refuse certificates in the event of death being hastened by this wanton noise-making. We entirely agree with a correspondent of one of the daily newspapers, who thinks that the question must be fought out by strong contention. As a matter of law, we are decidedly of opinion that church officials are, in strictness, only entitled to ring or toll bells previously to "morning" and "evening" prayer and for funerals, and that all extra ringing previously to sacramental and other occasional services, now so numerous, are absolutely without warrant of statute or custom.

MEMORIAL TO THE LATE DR. WILSON FOX.

A DESIRE has been widely expressed that there should be some memorial to the late Dr. Wilson Fox. It has been thought by some of his most intimate friends that the memorial should be personal, and that the most appropriate form would be a portrait, to be presented to Mrs. Wilson Fox. It is proposed, if the amount of the contributions permit, that replicas shall be made for the College of Physicians and for University College. For this object a committee has been formed, consisting of Sir William Jenner, Dr. Russell Reynolds (treasurer), Mr. Erichsen, Mr. George Pollock, and, as secretaries (to whom contributions can be sent), Dr. Gowers, 50, Queen Anne-street; and Dr. Barlow, 10, Wimpole-street.

PLACENTA PRÆVIA.

BAYER, in the *Centralblatt für Gynekologie* (No. 25), discusses the relations of the lower segment of the uterus to placenta prævia as held by different observers. He thinks that the condition of the uterus in this affection is often similar to that in premature labour—i.e., that in both the supra-vaginal portion does not undergo the usual changes, and that the internal os remains closed till labour. According to this view, no hæmorrhage occurs during pregnancy except when a part of the placenta actually covers the internal os, and even then only when the internal os dilates during pregnancy, which it does not always do.

Bayer recommends the following classification of cases of placenta prævia: 1. Cases in which the placenta covers the os, and in which the expansion of the supra-vaginal portion occurs at the usual time. In these there will be hæmorrhage during pregnancy, and secondary changes will be found in the placenta. 2. Cases of placenta prævia in which the cervix continues intact right on to labour. No uterine hæmorrhage occurs during pregnancy, and consequently no secondary changes will be found in the placenta.

HEALTH OF CALCUTTA.

THE death-rate in Calcutta for the first quarter of the year was 27·11 per 1000, being about 1·5 per 1000 above that of the same period in the preceding year, but lower than in any other year of the decade. The principal causes of mortality were fevers, by which the deaths were 7·51 per 1000 of the population, dysentery and diarrhœa 3·55, and cholera 3·47. The deaths from cholera were only 77 in January and 82 in February; but in the first week of March they experienced a sudden increase, and the total for that month amounted to 216. The latter number corresponds very closely with the average for the month of March during the last decade. Dr. Simpson, in his report, gives the details of an investigation into the probable cause of two special outbreaks of cholera, one on board the ship *Ardenclutha* in the river, and the other in Howrah. They were pretty clearly traced to the milk supply, which had been contaminated by being diluted with water from a tank which had been fouled with the excreta of a cholera patient. In a special memorandum on the reorganisation of the health department of the municipality, Dr. Simpson has brought under the consideration of the authorities two very important subjects—the appointment of qualified inspectors charged with the duty of making periodically a house-to-house visitation to ascertain the real sanitary condition of the dwellings, and the imperative need of an increase to the numbers and reorganisation of the duties of the staff of the health officer. We sincerely trust that these subjects will meet with the consideration they deserve from the sanitary commission.

SMALL-POX HOSPITAL EXPENDITURE.

THE Islington guardians have expressed sympathy with their representative who, at a recent meeting of the Metropolitan Asylums Board, showed that every small-pox patient had during the last six months cost £34 per head per day, and urged the closing of the hospital ships. It is impossible to tell how long London will remain free from small-pox, but to close the ships would be to expose London to a definite risk; it does not need the aggregation of more than a few cases of small-pox in hospitals situated in a populous neighbourhood to give rise to an outbreak, and though this would undoubtedly have the effect of reducing the cost per head, the total expense would necessarily be greater. We doubt if this result would be satisfactory to the Islington Board of Guardians or to any other of the London local authorities. The Metropolitan Asylums Board, acting in the interest of the ratepayers, regard themselves as a sanitary authority, and hold that they are doing a more useful work in preventing disease than in merely providing hospital accommodation for those who suffer from it. Dr. Edward Seaton has recently urged that the Metropolitan Asylums Board are justified in advocating the means for preventing the infection of persons for whom it would be their duty to provide accommodation if they were attacked with such illness. No doubt the interests of the ratepayers, both as regards the saving of life and the expenditure of money, will be best ensured when these two functions are in the hands of one administration. One of the greatest of London's wants is a central sanitary authority.

THE MEAT SUPPLY OF GIBRALTAR.

THE authorities at Gibraltar propose to abolish the importation of meat from Tangier. This decision has already occasioned loud protests. It is urged that a great number of persons derive their means of existence solely from slaughtering cattle and preparing meat for the garrison and population of Gibraltar; that it is easier and cheaper to take meat than live cattle across the Strait. In considering this matter, it must be born in mind that the all-important fortress of Gibraltar derives the greater part of its fresh meat supply from Africa—that is to say, from Tangier. The distance across the Strait is thirty-eight miles, and the sea is often very rough. Nor is there any port at Tangier; the steamers must anchor in the open bay, and the cattle are brought to them in flat-bottomed barges and then swung on board after much labour and trouble. In the face of these circumstances, it is much more simple to kill the bullocks at Tangier and send the meat over. Thus the trade in meat has been developed; and not only does it supply work for a great number of persons at Tangier, but the sums paid for the use of the slaughterhouse go in part to defray the cost of various charitable institutions. Finally, the town imposed a shilling tax on every head of cattle killed, and this pays the wages earned by the scavengers who, at rare intervals, are sent out to clear the streets. In spite, however, of all these arguments, it is impossible not to approve the action of the authorities at Gibraltar. The slaughterhouses at Tangier, both the Jewish and the Moorish, are indescribably filthy. In England such establishments would at once be closed by the police. They are a standing nuisance and gravely endanger the public health. No attempt is made to drain the slaughterhouses. The blood runs away in an open ditch down to the beach, and falls into the sea close to a spot generally selected for bathing. The ditch is so foul with blood that horses and mules are sometimes afraid to step over it. Perhaps, now that the inhabitants of Tangier find they are about to lose a lucrative source of income, the necessity of building a proper slaughterhouse and imposing regulations in keeping with the laws of hygiene will at last be admitted. In any case, and in self-defence, the authorities at Gibraltar have done well to bring such wholesome pressure to bear. Gibraltar is intensely overcrowded. At Tangier there is any amount of vacant space, and the climate is better and the air purer. It would therefore be preferable that the cattle should be slaughtered at Tangier; but only if this can be done under proper sanitary control, in slaughterhouses with cemented and well-drained flooring, where the most perfect ventilation and cleanliness are maintained.

SHEFFIELD MEDICAL SCHOOL.

IT will be remembered that the need for fresh premises for the Medical School at Sheffield was brought prominently before the public last October, when a meeting was held at Firth College, at which the Archbishop of York and Sir Andrew Clark were present. The amount required was £6000, and the appeal for assistance has been so well received that the Council now feel justified in proceeding with the erection of the new premises. A site containing about 550 yards, situated in Leopold-street, opposite Firth College, has been secured, and Dr. Bartolomé, president of the school, is expected to lay the foundation-stone about the 16th or 17th inst. The plans which have been prepared give the school a handsome outward appearance, and provide all the accommodation needed. The main elevation is entirely of stone, and the treatment a sort of free Classic Renaissance, which will cause the building to harmonise well with the surrounding property. The contractors expect to have the premises completed by next March.

THE IRISH EXAMINING BODIES.

THE College of Surgeons of Ireland have not abandoned all hope that the Irish medical corporations may still combine to form one examining body. At a meeting held on Saturday last the Fellows of the College adopted a motion of Sir Charles Cameron to the effect that a fresh attempt should be made to procure the much-needed combination, the General Medical Council having recognised the Apothecaries' Hall as a medical corporation; and, further, they expressed the opinion that, should an attempt again fail, the College considers that the Council (we presume that of the College) should, if possible, form a combination with the Apothecaries' Hall. The proposal was seconded by Dr. Kidd, and carried. We sincerely trust that the Apothecaries' Hall will agree to this course. There is not, we fear, much hope that the College of Physicians of Ireland will at this stage seize this excellent opportunity of proving that their interest in the welfare of the profession is so great as to make them depart from their previous decision, but the Apothecaries' Hall have before now shown their willingness to combine.

HERPES IN PHTHISIS.

AN interesting paper in the *Gazette Médicale des Hôpitaux*, No. 9, 1887, by E. Barié, brings together much information on a rare condition met with in tubercular subjects, and formulates the following conclusions. Zona is a rare complication of chronic pulmonary phthisis, usually affects the thoracic walls, but may occur in the neck, face, loins, upper and lower extremities, and even the perineo-genital region. The eruption, sometimes accompanied by motor and thermal disorders, has been set down to vaso-motor perturbations possibly of reflex origin, but this explanation is insufficient, and the zona of tubercular subjects may be connected with a tuberculous meningo-myelitis, or more often with a parenchymatous peripheral neuritis.

THE IPSWICH INQUEST.

THE unfortunate death of Bertha Wall, aged sixteen, a pupil at the Ipswich High School, has been the cause of serious differences between the coroner on the one hand, and the jury and representatives of the press on the other. It may be remembered that the body of the deceased was found in a pond near Akenham. The evidence went to show that death resulted from drowning; the jury ultimately returned an open verdict. From information received, the coroner, Mr. Vulliamy, in the exercise of his discretion, decided to proceed with the inquiry with closed doors. The jury and certain members of the press took umbrage at this, and resented it, to the extent that the former refused to serve unless the reporters were admitted, and the latter on their part insisted on being present. After several adjournments the case was investigated in private, the Lord Chancellor having adjudged the coroner within his legal rights in excluding the press. This decision is founded on statute, which empowers the coroner to conduct his inquiries in public or private as he may deem fit. Whilst regretting the exclusion of reporters, we are bound to admit that if the responsible judicial authority is of opinion that matters will transpire the nature of which will be likely to shock and injure decency and morals, he is acting wisely in refusing admission to the general public. In the present instance no one seems to have disputed the point that some extraordinary revelations would be made at the inquest—revelations the result of which it would be difficult to foresee as regards their individual and collective application. We fully acquiesce in the contention that guilt should be visited with its just reward, even to the extent of public exposure, providing public morals are not abused thereby. There is a duty to the living as well as the dead, and no demand can be more urgent than that which calls for the protection of the mind of youth from the exposure of revolting details. Prior to the completion of the inquiry the coroner committed a member of the press for contempt of court, in that he openly advised the jury not to be intimidated by the coroner. The same evening a writ of *habeas corpus* was obtained from Mr. Justice Grantham in the terms asked for—viz., that the prisoner should be admitted to bail pending an application to quash the warrant of commitment. The incident was terminated by the coroner ordering the release of the prisoner, the latter having apologised for any remark he might have made constituting contempt of court.

UNIVERSITY COLLEGE, LONDON.

DR. WILLIAM RAMSAY, Principal of, and Professor of Chemistry in, University College, Bristol, has been appointed to fill the chair of chemistry in University College, London, vacant by the resignation of Dr. Williamson. Dr. Sydney Ringer, F.R.S., has been appointed Holme Professor of Clinical Medicine, in succession to the late Dr. Wilson Fox. Mr. Victor Horsley, F.R.S., has been appointed Professor of Pathology, in succession to Dr. Bastian, resigned. The first award of the Slade Travelling Scholarship (value £150 per annum for two years) has resulted in the election of Mr. Harrington Mann of Glasgow.

PROFESSOR BILLROTH.

A RUSSIAN daily paper of the 11th (i.e., the 23rd) of May announced the death of Professor Billroth, whose work, it remarked, had been the text-book of the majority of Russian students. Happily, so far is this statement from being correct, that the condition of the eminent surgeon has greatly improved, and he is now considered completely out of danger. Dr. Hacker, who is doing his duty for the present, announced to the class last week that it was hoped that their great master would himself be able to resume charge of the clinic after a rest of six months.

THE APPROACHING COLLEGE ELECTION.

WE understand that Messrs. Willett, Brudenell Carter, George Cowell, and James Rouse are likely to be candidates for election to the Council of the Royal College of Surgeons. The retiring members are, Sir T. Spencer Wells and Messrs. Jonathan Hutchinson and John Wood, of whom the two former at least will probably seek re-election. Nomination papers must be sent in before July 13th.

CEPHALIC VERSION IN PLACENTA PRÆVIA.

DR. KUFFERATH, Professor of Midwifery at the University of Brussels, in a clinical lecture on cephalic version, expresses an opinion that it is bad practice to resort to this operation in cases of placenta prævia; we cannot hope, he says, to arrest hæmorrhage by changing a malpresentation, for the head, in cases where cephalic version is still possible, will not plug the bleeding surface.

DEATHS OF EMINENT FOREIGN MEDICAL AND SCIENTIFIC MEN.

THE deaths of the following foreign medical and scientific men are announced:—M. Henri Isartier, Senator of la Gironde and Mayor of Monségur. M. Isartier had long given up the practice of medicine, and had devoted himself to horticulture and scientific agriculture. He published a treatise on the Cultivation of Fruit-trees and a Course of Agriculture.—Dr. A. U. Giubner, a well-known Russian military surgeon.

THE ILLNESS OF THE CROWN PRINCE.

DR. MORELL MACKENZIE has again visited the Crown Prince, and on Wednesday last he removed another portion of the growth on the vocal cord by laryngeal forceps. The Crown Prince will travel to London next week, and after the Jubilee festivities it is expected that a long stay will be made in the Isle of Wight, so that Dr. Morell Mackenzie may conclude the treatment of his Imperial patient.

PHARMACEUTICAL CONFERENCE.

AMONGST other subjects upon which the secretaries of the Pharmaceutical Conference, which is to be held next August, invite papers, are the following:—The alkaloidal strengths of narcotic extracts compared with that of the fresh juice; the quality of cacao butter; the application of dialysis to pharmaceutical processes; the strength of tinctures and liquid extracts; the cause of the variations in the value of salicylate of sodium; the active principles of ergot, senna, colocynth, jalap, aspidium, felix mas, lactucarium, senega, taraxicum, and buckthorn.

MEDICAL LEGISLATION IN BELGIUM.

THE Belgian Legislature has just had before it a new Bill concerning university examinations and academic regulations. The proposals to re-establish the arts degree as obligatory for medical students and a final State examination for a licence to practise did not meet with much favour. Some changes were, however, voted in the programme of medical studies; thus, the special course of embryology is to be abolished, and this subject included in the course of general and special histology; also the elements of pharmacy, together with the course on pharmacognosis, are to form part of the programme for the first Doctorate. The necessity of a better acquaintance with legal medicine and toxicology has been recognised, but no fresh examination has been imposed. Some of these changes will doubtless affect the numerous British practitioners who, under existing circumstances, resort to Brussels for the degree which is denied them in London. Another regulation has been made as the result of the representations of Belgian medical men, who have for a long time been complaining bitterly of the competition to which they have had to submit from foreign practitioners, especially at Ostend and other watering-places, for English and German practitioners have hitherto been able without much difficulty to obtain a licence to practise in Belgium upon the strength of their existing diplomas. Now, however, all foreigners will be obliged to pass an examination and obtain the recommendation of the central jury before permission to practise in any part of Belgium can be obtained.

FOREIGN UNIVERSITY INTELLIGENCE.

Berlin.—The number of university teachers of all grades is now 290, of which 104 belong to the Medical Faculty, including three teachers of odontology.

Vienna.—The vacation short courses of practical instruction for medical men, which have been held for many years past during the months of August and September, are about to be stopped. The prospectus of these courses, numbering more than fifty, had already been published when this decision was arrived at.

SCHLESINGER ON LAPARO-SALPINGOTOMY.

DR. SCHLESINGER, chief of Prof. Slavianski's clinic in St. Petersburg, publishes statistics of 274 cases of laparo-salpingotomy for diseased conditions of the Fallopian tubes. Only four of them seem to be by Russian surgeons, two by Prof. Slavianski and two by Dr. Sutugin, all of which were successful. The total deaths were twenty-four, 245 cases being stated to have been completely cured. Dr. Schlesinger concludes that in pyosalpinx, hydrosalpinx, or hæmato-salpinx laparotomy is the only possible resource, and that generally speaking, though it is by no means necessary to look upon this operation as a *dernier ressort*, it should be performed as rarely as possible.

NEW TEST FOR MILK.

A NEW test for water—that is pump water—in milk has recently been proposed by Herr Szilasi. This depends on the fact that sulphate of diphenylamine is coloured blue by the action of an exceedingly dilute solution of a nitrate. As well water always contains more or less nitrate, its presence in milk can be detected. The test is carried out thus: Twenty minims of sulphate of diphenylamine is placed in a small porcelain vessel and a few drops of the milk which is to be examined added to it. If this contains even 5 per cent. of average well water, a blue tinge will gradually distinctly appear. Sulphate of diphenylamine is easily procurable, and only costs about sixpence an ounce, so the test may be readily tried.

THE Jubilee number of the *Illustrated London News* is accompanied by a coloured plate of Her Majesty, in State Robes, standing near her throne. The work is of the highest finish, and the delicate flesh tints are copied with the greatest accuracy. The number itself contains a pictorial history of Her Majesty's reign, and can be warmly recommended to all who desire to become possessed of such a souvenir of the event we shall all celebrate on the 21st inst.

IN *Scribner's Magazine* for July, Professor D. A. Sargent, M.D., of Harvard College, will publish, as the fruit of many years' practical experience, an article on "The Physical Proportions of the Typical Man." In it the author will give a standard of physical measurement based on the measurements of 10,000 individuals.

A REUTER'S telegram from New York announces that yellow fever has broken out at Key West, Florida. The Government has ordered the mails between Key West and Cuba to be fumigated, and a strict quarantine is enforced at the northern ports.

THE Jubilee offering of a Royal Standard made by the young ladies of Reigate to the Royal Medical Benevolent College at Epsom has been most gratefully acknowledged by the authorities.

AT the last meeting of the Epidemiological Society Dr. Thorne Thorne was elected President for the next session, Mr. R. D. R. Sweeting succeeding him in the office of treasurer.

THE formal opening of the Exhibition of Articles of Food and Drink will take place at Amsterdam on the 15th inst. The Exhibition will remain open till the end of September.

WE are glad to be able to state that Mr. Lund is improving in health, and progressing rapidly towards recovery.

TYNEMOUTH INFIRMARY.—At a recent meeting of the Building Committee of this institution, it having been intimated that the Dowager Duchess of Northumberland would be unable to perform the ceremony of laying the foundation stone, it was agreed that the stone should be laid by Mr. R. M. Tate, president of the committee. The ceremony will take place on the 21st inst.

THE MANX CLIMATE.

By ALFRED HAVILAND,
AUTHOR OF "CLIMATE, WEATHER, AND DISEASE," "THE GEOGRAPHICAL DISTRIBUTION OF HEART DISEASE, CANCER, AND PHTHISIS IN ENGLAND," ETC.

MANY there are who will for a long time remember the fogs, frosts, and snowstorms of the winter, which we all hope has at length left us, although the snows of April and the fogs of May have combined to keep it fresh in the memories of the Londoner and of many an invalid in what has been called the sunny south. There is an erroneous impression deeply engraven in the public mind that the further one goes north the winters become colder and the summers less genial. As a general proposition there can be no doubt that this is true; but the climates of the world are made up of factors, which, whilst obeying the immutable laws of nature without exception, are nevertheless so interdependent the one on the other as in no two places on the face of the earth to be found in exactly the same combination, and therefore identical in results. Our great oceanic currents are grand secondary factors in both the general and local climates of the earth, and all of these we know to be influenced by the present configuration of the great continental areas, their initial direction having been originally determined either by that of powerful and constant air currents (prevailing winds), or by differences in the temperature between equatorial and polar waters, or by both causes combined. Let the reader consult the admirable map of oceanic currents in the "Physical Geography" of the late lamented Keith Johnston (whose young life was so recently sacrificed to his devotion to geographical exploration), and he will see the course of the south equatorial current from the S.E. to the N.W. directed by the north-east coast of South America until it reaches the Gulf of Mexico, where the land turns it back, so that after its emergence from this inland sea it is diverted sharply to the N.E. by the south-east coast of North America, and, continuing in the same direction, sweeps by the British Isles and the north-west coast of Norway far beyond the Arctic Circle, carrying with it the genial warmth with which the south-westerly or anti-trade winds load themselves in their passage over it, and then disseminate throughout Western Europe; Cornwall, Ireland, the Isle of Man, and the western isles and coast of Scotland enjoying to the fullest extent, from greater proximity to their source, these warm air currents in all their nascent purity; the result being, as described by Sir A. C. Ramsay in his "Physical Geology and Geography of Great Britain," that, where these genial influences are first felt, certain garden plants grow through the winter, and even in the far north-west of Scotland, which the winter cold of Middlesex kills. "I have seen," he says, "fuchsias growing all the year round on the shores of Loch Erribol in Sutherland."

Now, the Isle of Man enjoys all the genial influences ascribed to climates begotten of the Gulf Stream to the fullest extent; it therefore will no longer be a matter of wonder that when the befogged and befrosted southerner landed on her shores last winter, or even during this spring, he began to think that the learned Dr. John Macculloch, in writing to Sir Walter Scott, was somewhat hasty in his condemnation of the opinion of "the author more profound than all his predecessors," who firmly believed that Mona was the Elysian plain of Homer, "where ocean always sends forth the gentle blowing breezes of the west wind," for had he not just emerged from the Cimmerian darkness of fog-capped London, or just been dug out of a snow drift? With a mind filled with such late experiences, and impressed with the notion that the winters increase in severity as one goes northward, we ought not to be surprised at his giving in his adhesion to the Elysian theory when he found, on landing, no trace of winter, no snow, no fog, and only the history of a brief frost, and when the self-registering thermometers and the sunshine recorders told him of the heat and light enjoyed in Mona at a time when he was reading his morning letters in London by gas-light, or being driven in tandem cabs, at extraordinary fares, over avalanches through its streets. This is no exaggeration, but, on the contrary, a tame picture of what was experienced by hundreds of visitors last winter and this spring, and many a winter and spring before.

The Isle of Man suffers from the ignorance of the public on two subjects—climatology and geography. The former is not taught in medical or any other schools in England, and the average Londoner and Southron gets sorely puzzled when asked to define the geographical position of Manxland; he generally has no notion whatever about Mona, and if he has somewhere or somehow heard of her, she is generally inextricably mixed up in his mind with the Isle of Wight or Iceland, or in the poetico-geographical mind with Ultima Thule; although some learned Londoners will tell you that the peculiarities of its fauna—to wit, the taillessness of its cats and poultry—"differentiate" Mona from Vectis; this is a grand peg on which many memories are hung. This ignorance is strange when we consider how much interest this lovely island of grand mountain, sea-cliff, and glen scenery has created in times gone by; but perhaps people were then more learned and less "crammed" than they are nowadays in this age of competitive examinations.

The learned Dr. J. F. Berger, who visited this island in 1811, when he examined its geology, took the temperature of its springs, and measured its mountains, in company with Mr. Thomas Scott, the brother of the "author of Waverley," tells us that it was in the Isle of Man that the first attempt was made to use the barometer to determine the altitude of a mountain in Great Britain, and that this experiment was first made by the good Bishop Wilson on Snaefell, by which he approximately ascertained its height; the original experiment, pointed out by Pascal, having been first performed by Perier (his brother-in-law) on the Puy de Dôme, September 19th, 1648. Bishop Wilson came over to the Isle of Man in 1698, where during his long residence he made the experiments that led him to the elevation of Snaefell, which, according to the latest survey, equals 2034 feet. It is also interesting to note that during his stay in the island Dr. Berger took "the temperature of several springs (thirty-one) in all parts of the Isle of Man, to deduce by approximation the mean temperature of the climate of that island," and that he concluded from these experiments "that the mean annual heat in the Isle of Man" was 49·99°. Mr. Alexander Buchan, M.A., F.R.S.E., and secretary to the Scottish Meteorological Society, from observations ranging over a period of twenty-three years (1857-1880), makes it 49·00. For Dr. Berger's interesting observations I must refer the reader to the Transactions of the Geological Society of London. Following the Bishop's example, Dr. Berger measured the altitudes of seventy-seven mountains and other heights, twenty of which ranged from a thousand to nearly two thousand feet above the sea level. These heights he determined by the barometer, and in his calculations made use of Professor Leslie's sliding scale.

From the past I will now proceed to the present. During the exceptionally cold winter quarter of 1886 there actually occurred in the Isle of Man, to the astonishment of most Manx men, a snowstorm which will be long remembered as a most unusual occurrence, like the only too historical snowstorms that have occurred at Melbourne since 1849—namely, those of August 29th, 1849, and July 26th, 1882. As the Isle of Man suffered from the effects of the exceptional winter of 1886, it will be well to see how it came out of the ordeal by comparing the Manx and the south coast winter quarters of that period, Douglas representing the Isle of Man, and Truro, Plymouth, Torquay, Ventnor, Eastbourne, Osborne, Southbourne, and Brighton representing the south coast of England. The mean monthly temperatures were as follows:—

	Jan.	Feb.	Mar.	Mean.
Douglas, Isle of Man	38·9°	38·5°	39·2°	38·86°
South Coast (eight stations)	38·5°	38·4°	39·9°	38·26°
Temperature at Douglas.....	*0·4°	*0·4°	†0·7°	*0·72°

* Excess. † Defect.

These figures speak for themselves, and prove how well Douglas holds its own while the southern health resorts are arrayed against her, even during such an exceptional winter quarter as that of 1886.

I will now give Mr. Thomas Keig's report of his observations made during the three meteorological winter months (December, January, and February, 1886-7) for Douglas:—

	Dec.	Jan.	Feb.	Mean.
Mean Maximum	42·89°	44·48°	42·03°	= 43·13°
Mean Minimum	34·96°	37·34°	42·06°	= 38·13°
Mean Temperature	38·92°	40·91°	42·04°	= 40·62°

Such are the results of two exceptional winters. The Manx winter is, however, remarkable for its mildness, its

mean temperature amounting to 42·10°, which is higher than five out of the six south coast counties—namely, Kent, 39·3°; Sussex, 40·0°; Hants, 40·7°; Dorset, 40·9°; Devon, 42·0°; and Cornwall, 44·8°; the last being the only county the mean temperature of which exceeds that of the Isle of Man; the mean temperature of these six counties being 41·3°, or 1·7° colder. Added to the mild temperature and comparative freedom from snow and frost, which characterise the Manx winter, the visitor should remember, when hesitating between going abroad and going to the Isle of Man, that in the latter he need not fear either the cholera, the mistral, or earthquakes, and that in sunniness it ranks next to the Channel Islands, which are the sunniest parts of the British Isles, as shown by Mr. A. W. Moore, M.A., M.H.K., in his "Manx Note-book." Let him remember, too, that the Isle of Man lies within 54° lat. N., or more than three degrees further north than the south coast, and he will then be prepared, after what has been said, to purge his mind of the fallacy that the winters must necessarily become colder and the summers less genial the further one travels from the south to the north.

THE HOSPITAL SUNDAY FUND.

ON the 6th inst. a public meeting was held at the Lambeth Palace Library in support of the hospitals and medical charities in Lambeth participating in the Hospital Sunday Fund. The meeting was the first of a series of public meetings to be held during the next fortnight in eight different districts of London for the purpose of arousing public interest in the pecuniary needs of the hospitals. The chair was occupied by Lieutenant-General Fraser, M.P., at the opening of the proceedings, in the temporary absence of the Archbishop of Canterbury, who arrived, however, shortly after the meeting began, and then took the chair. Viscount Lewisham moved the first resolution: "That this meeting pledges itself to use every endeavour to arouse the inhabitants of this district of London to the importance of maintaining the hospitals and medical charities in the utmost efficiency. In furtherance of this object it urges the clergy and the ministers of religion to point out the advantage of giving to the Hospital Sunday Fund, owing to the nominal cost of so collecting funds for hospitals, and to make an earnest appeal to the people to so increase their contributions as to secure that the whole sum collected shall not be less than £100,000." The Rev. Arthur Jephson seconded the resolution, and the Rev. Hermann Gallaney, speaking on behalf of the Hebrew community in Lambeth, supported it. The resolution having been carried, Mr. Henry C. Burdett, chairman of the Executive Committee, moved the second resolution:—"That this meeting regrets to learn that the expenditure and liabilities of the hospitals and medical charities in this district in the year 1886 exceeded the ordinary income by more than £10,000, and pledges itself to increased exertion with the view of preventing any like deficiency during the current year." The Rev. Newman Hall seconded this resolution, and the chairman having supported it, it was carried unanimously. A vote of thanks to the Archbishop of Canterbury for presiding and granting the use of the library for the purpose of the meeting brought the proceedings to a close.

On the 7th inst. a meeting was held at the Paddington Vestry Hall, the Rev. W. Abbott in the chair. Amongst those present were Baron Ferdinand de Rothschild, Mr. Henry C. Burdett, Hon. Henry Noel, and Mr. E. Parker Young. After some introductory remarks from the chairman, Baron Ferdinand de Rothschild, in a very able speech, setting forth the needs as well as the merits of our general hospitals, proceeded to show how very small was the proportion of the amounts collected from year to year in aid of the Hospital Sunday Fund (£40,000) in so large and wealthy a centre as London, and contrasted the enormous amount spent in pleasure and fancy articles of dress, especially of the Jubilee novelties of the present year, showing that by comparatively little self-denial ample means might be forthcoming to furnish even more than the £100,000 now wanted to free our medical charities from debt. The Hon. Henry Noel seconded the resolution, which was identical with that moved at the other meetings. Mr. Henry C. Burdett and Mr. E. Parker Young proposed and seconded the second resolution, which was similar to the second resolution proposed on the 6th inst. at the Lambeth meeting, and which was unanimously adopted, as was also a vote of thanks to the chairman, and to Mr. Michelli, secretary of St. Mary's Hospital, and Mr. Ryan, secretary of Queen Charlotte's Hospital, the hon. secretaries, who had been at the trouble of organising the meeting.

On the 8th inst. a meeting was held at the Hampstead Vestry Hall, Haverstock-hill. Lord William M. Compton occupied the chair, and was supported by Sir Sydney H. Waterlow, Sir Joseph Fayrer, the Rev. Sherrard B. Burnaby, M.A. (vicar of Hampstead), the Rev. Dr. Kennedy, Mr. R. F. Horton, M.A., Mr. J. S. Fletcher, J.P., Mr. G. H. Powell, J.P., and others. The receipt of letters was announced from the Marquis of Lorne, Lord Cranborne, Lord Robartes, and others, expressing regret at inability to be present. The Rev. S. B. Burnaby moved the first resolution, which pledged those present to use every endeavour to arouse the inhabitants of Hampstead and north-west London to the importance of maintaining the hospitals and other medical charities in the utmost efficiency, and called on the clergy and other ministers of religion to earnestly appeal to their congregations to assist in securing a collection of not less than £100,000 for the Hospital Sunday Fund, against the £40,390 collected last year. Sir Sydney Waterlow seconded the resolution, and it was carried unanimously. Sir Joseph Fayrer moved, and Mr. R. F. Horton seconded, a resolution pledging the meeting to increased activity on behalf of the local hospitals and dispensaries, which was also carried unanimously, and a cordial vote of thanks to Lord W. Compton for presiding terminated the meeting.

A meeting was held on the 8th inst. at the Rink Hall, Blackheath, Mr. Henry Green in the chair. Mr. Fell Pease, M.P., Sir Edmund Currie, Admiral the Hon. F. Egerton, Mr. G. C. Whiteley, the Rev. Rhodes Bristow, D. Reith and C. Wilson, and Mr. Burdett being the speakers. It was pointed out that the south-eastern district, with upwards of 1,000,000 inhabitants, contained but 486 hospital beds, of which only 374 were occupied in 1886 owing to a want of funds. The apparent deficiency between income and expenditure amounted to £2800, but the actual deficiency was quite £8000. The crowded districts of Camberwell, Deptford, and Bermondsey, with Greenwich and Lewisham, were very inadequately supplied with hospital accommodation and the necessity of increasing the size of the Miller Hospital was insisted upon by several of the speakers. Mr. Reith urged that if Birmingham, which had collections in seventy places of worship, could collect £5000 on Hospital Sunday, then London, with 2000 contributing congregations, was able to raise on the same average at least £150,000 every year. Mr. Burdett, referring to the co-operation and presence of Lord Salisbury, the Duke of Cambridge, Lord Rosebery, the Archbishop of Canterbury, Lord Randolph Churchill, and other eminent men, regretted that the local members of Parliament for Greenwich and the district did not apparently care enough for the sick and suffering of south-east London to follow so excellent an example as that set them by their leader the Prime Minister. He was glad to see Mr. Whiteley at the meeting, and to be able to report that in every other district of London the local members of Parliament were doing their utmost to help the hospitals. There was a statement made by Mr. Bristow in the local press to the effect that Hospital Sunday injured the Royal Kent Dispensary and was not an unmixed blessing to the hospitals. This was not the fact, for whereas the Royal Kent Dispensary received on an average £78 per annum from church collections in the ten years preceding the establishment of Hospital Sunday, during the first ten years of the fund the grant to the dispensary averaged £130, and during the last three years it was over £140 per annum. As to its effect on the hospitals as a whole, it has been shown by the production of the actual figures that, allowing for the increase in population and for all other circumstances, Hospital Sunday had benefited the London hospitals to the extent of £20,000 per annum, by which sum the voluntary incomes of these institutions had increased during the years it had been established in the metropolis. In other words, whereas the expenditure of all the hospitals had increased to the extent of one farthing per head of the population, the income had increased to an amount equal to one penny per head, showing a clear gain in available funds of three farthings per head of the entire population. The meeting was a genuine success, and the speeches proved of more than ordinary interest. A vote of thanks to the chairman closed the proceedings.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

A MEETING of the Fellows, presided over by Sir William Stokes, was held on Saturday, the 4th inst., to receive the annual report of the Council, and for the consideration of certain notices of motion by Mr. Thomson and Sir Charles Cameron.

The tenure of office and election of vice-president was first discussed, consequent on a resolution of the Council passed last March, and a motion that it should be adopted by the College was proposed by Mr. W. Stoker. At the suggestion of Mr. Chaplin, however, it was resolved that the secretary to the Council should be instructed to call the attention of the in-coming Council to the matter, and that a meeting of the College should be called to consider the resolution.

Mr. Thomson's notice of motion then came on for discussion. It was as follows:—"That, having regard to the interests of medical education in Dublin, it is desirable to diminish, as far as possible, the number of proprietary schools, and that, with a view to carrying out this principle, it be an instruction to the Council to take such steps as may be necessary to effect, in the first instance, an amalgamation between the College School and the Carmichael College of Medicine." In the course of his speech Mr. Thomson stated his willingness to withdraw the word "proprietary" in his resolution. There was a debt of £6500 on the Carmichael College, the interest of which it was intended should be equally defrayed by the professors of both medical schools. Mr. Kidd thought if amalgamation took place the teachers would be better paid, and the classes of students in attendance better looked after. He moved that the words "equitable terms" be added to the motion, which was acquiesced in. Mr. Bennett spoke against the proposal and considered that the fusion of the two schools named could not be carried out with advantage. Mr. Macnamara thought it strange that in the report of the proceedings of the Council the Fellows did not receive the information they were entitled to in respect to this matter. There was, he said, a majority of the Council against the scheme, and a protest had been made against the proposed amalgamation by a large majority of the professors of the College itself. It was also contrary to the Supplemental Charter to bring in a great many others connected with a school outside the College itself. Mr. Barton declared his opinion that it would be a mutual advantage to both schools to become amalgamated. The increase in the number of professors would be gradually reduced in course of time. Mr. W. J. Stoker, Mr. Jacob, and Mr. Fitzgibbon also spoke in favour of the motion. Mr. Hamilton asked why the Fellows of the College should force upon the professors of the College the burden of debt of £6500. He was always opposed to amalgamation. Three years ago the scheme, when brought before the Council, had been negatived, and on a second occasion a similar result had occurred. He had offered, if a majority of the College professors were not opposed to the scheme, not to take any action in the matter; but if otherwise, he resolved to throw himself heart and soul into the opposition. He thought if the competition from the extramural schools were removed it would not tend to the advantage of medical education. He believed the reason the College school fell away was because the "grinders" and demonstrators had been discouraged; but he had not the slightest doubt of its ultimate success. A division took place, and on the votes being counted a slight preponderance was shown on the side of those objecting to the motion, and by request the names were taken down. Messrs. Robinson and Jacob were appointed by the President as scrutineers, and as a result it was found that 27 voted for and 30 against Mr. Thomson's motion, which was accordingly declared lost by the President.

Sir C. Cameron's motion, in consequence of the lateness of the hour, was adjourned to Monday, when it came on for consideration. The motion was—"That the College regret the failure of the attempt to unite the Colleges of Physicians and Surgeons and the Apothecaries' Hall for the purpose of holding examinations. The College is of opinion that a fresh attempt to effect this tripartite combination should be now made, the Medical Council having recognised the Apothecaries' Hall as a medical corporation; and should an attempt again fail, the College considers that the Council should, if possible, form a combination with the Apothecaries' Hall." Sir C. Cameron pointed out that the Apothecaries' Hall was now a legal licensing body, and showed that a moderate fee, some £10, would be the cost of their diploma. They were capable of giving a registrable diploma, which was eligible for Poor-law vacancies and for the services, &c. It was extremely unlikely that the College of Physicians would join with the Apothecaries' Hall, and it was therefore of great importance in the interests of medical education that the College of Surgeons should form a combination with that body. Dr. Kidd seconded the motion, which was opposed by Mr. Chaplain, who moved as an amendment that the last clause in the resolution be struck out. This amendment was seconded by Sir George Porter, but on being put to a division it was lost, and Sir C. Cameron's motion was adopted.

THE REOPENING OF THE PUMP ROOM AND BATHS AT LEAMINGTON.

ON the 1st inst. the Royal Pump Rooms, Leamington, which had been closed for several months for purposes of repair, improvement, and renovation, were formally re-opened by the Right Hon. A. W. Peel, Speaker of the House of Commons. The proceedings commenced with a luncheon at the new Town Hall, at which upwards of 300 were present, including a large number of representatives of the medical profession from the neighbourhood and various midland towns. After the luncheon a procession was formed from the town hall to the Pump Rooms, where there was a large assembly of spectators to witness the opening ceremony.

The Speaker, who presided, in opening the proceedings spoke of the pleasure it gave him to take part in that large gathering, and said he trusted that the reopening of these baths would greatly contribute to the prosperity of the borough. Having alluded to the curative properties of the Leamington waters, he expressed the hope that those persons who were in the habit of recruiting their health by having recourse to the continental spas would not forget that they might procure as much benefit by the use of the waters at home.

On the motion of Dr. T. W. Thursfield, a hearty vote of thanks was given to the members of the medical profession who had come from various parts of England to assist in the proceedings. The compliment was acknowledged by Dr. Garrod, who argued at considerable length that the most beneficial results often followed the judicious employment of saline baths and drinks.

Mr. Oliver Pemberton combated the popular idea of sending patients away to foreign spas while there was adequate provision at home. Dr. Burney Yeo also responded. Dr. Eardley Wilmot proposed a vote of thanks to the visitors. The motion was adopted, and the High Sheriff and Sir A. Hodgson responded. On the proposal of the Mayor of Leamington, a cordial vote of thanks was given to the Speaker for his attendance that day, and the Speaker having acknowledged the compliment, the proceedings closed.

In the evening the baths were thrown open for public inspection, and were visited by many hundreds of the inhabitants of the town.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF THE INSPECTORS OF THE MEDICAL DEPARTMENT OF THE LOCAL GOVERNMENT BOARD.

Diphtheria in the City of Winchester, by Dr. PARSONS.—Winchester has more than once been inspected by officials from the Local Government Board. But it is satisfactory to note that, whereas when Mr. Power visited the city in 1877, on account of the prevalence there of fatal diarrhœa, water was derived partly from wells, there was no system of sewers, cesspools being in general use, and cesspit privies were discharging into drains, Dr. Parsons now reports that a sewerage scheme has been carried out, that cesspools have been abolished, that the Water Company's service is all but

general, that an infectious hospital, disinfecting stove, and mortuary have been provided, and that a great improvement has been effected in the house property. Winchester has certain defects which attach to the locality in which it is placed. Much of the city stands on an alluvial flat, the alluvial deposits containing an impervious bed of peat, upon the configuration of which subsoil water is held up as in a cup. But the disease which has recently been under investigation seems to have had no connexion either with these special physical circumstances or with any of the remaining sanitary defects. The diphtheria, which, together with suspicious sore-throats, attacked eighty-three persons between April, 1886, and March, 1887, was scattered in all parts of the city, the high-lying chalky slopes suffering in common with the low-lying alluvial bed; the attacks were found at each extreme of the social scale; and in many of the houses attacked there was no obvious sanitary defect. In nineteen of the thirty-nine houses attacked, the first case was a child attending day-school, and in several instances there was in the street opposite the house affected a sewer ventilator which was stated to have caused offensiveness. No such defect was, however, detected at the date of Dr. Parsons's inspection. Milk could be set aside as the cause of this disease, and, after careful investigation, it appeared that the spread had been mainly brought about by reason of contact with a number of ill-defined attacks of sore-throat, which, though from a clinical point of view they may not be described as diphtheria, are yet etiologically of the same nature. A number of these cases are given, one group showing that the paralysis of the muscles of accommodation in the eye was the only symptom apparent, and that the cases were sufficiently numerous to have led one schoolmistress to imagine that the eye affection itself was of an infectious character. In a case of three adults it was found that one man with sore-throat was given some drink in the same mug with two other men. Both of the latter were, within two or three days, attacked with genuine diphtheria, one having paralysis of the soft palate.

The Sanitary State of the Okehampton Rural District, by Dr. BLAXALL.—The sanitary state of this district was inquired into in connexion with the administration of the Public Health Act in the locality. Many of the dwellings were found to be of a very inferior character, having stone floorings, and otherwise affording evidence of dampness. Water supplies, except in certain specified places, are exposed to excremental pollution, and in some instances supplies still remain in use, although they have brought about enteric fever, and are derived from sources which continue to be open to suspicion. Certain towns and villages have sewers, but even in these cases such matters as ventilation and flushing need attention. Pig-keeping and excremental and other nuisances also obtain to a considerable extent in the district. In April, 1886, parochial committees were appointed by the sanitary authority, but Dr. Blaxall could not learn that any action had resulted from this step. Neither the work of the medical officer of health nor that of the inspector of nuisances is held to have been what the sanitary circumstances of the district should have demanded; and the remuneration of the former is held to be altogether inadequate to secure such services as are called for. On the whole, this district does not bid fair to do much towards removing those conditions of ill-health which so freely obtain throughout a large portion of its area.

Spilsby Rural District.—The death-rate for this district during 1886 was 14·83 per 1000. The rate quoted in our issue of May 28th was the average of the preceding twelve years.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns 4861 births and 3452 deaths were registered during the week ending June 4th. The annual rate of mortality in these towns, which had been 20·3 and 20·4 per 1000 in the preceding two weeks, declined last week to 19·5. During the first nine weeks of the current quarter the death-rate in these towns averaged 20·5 per 1000, and was 1·5 below the mean rate in the corresponding periods of the ten years 1877-86. The lowest rates in these towns last week were 12·8 in Derby, 13·2 in Portsmouth, 13·7 in Brighton, and 15·3 in Leicester. The rates in the other towns ranged upwards to 25·9 in Newcastle-on-Tyne, 26·4 in Blackburn, 27·0 in Norwich, and 30·5 in Manchester. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had been 532 and 522 in the preceding two weeks, further declined last week to 521; they included 252 from measles, 143 from whooping-cough, 44 from scarlet fever, 34 from diarrhœa, 26 from diphtheria, 22 from "fever" (principally enteric), and not one from small-pox. No death from any of these zymotic diseases was registered during the week in Derby, whereas they caused the highest death-rates in Birkenhead, Norwich, and Manchester. The greatest mortality from measles occurred in Brighton, Sheffield, Liverpool, Oldham, Salford, Newcastle-upon-Tyne, Birkenhead, Norwich, and Manchester; and from whooping-cough in Birmingham, Bolton, and Plymouth. The 26 deaths from diphtheria in the twenty-eight towns included 15 in London, 2 in Liverpool, 2 in Manchester, and 2 in Oldham. No death from small-pox was registered in London or in any of the twenty-seven large provincial towns. Only four cases of small-pox were under treatment on Saturday last in the metropolitan hospitals receiving cases of this disease; one new case was admitted during the week. The deaths referred to diseases of the respiratory organs in London, which had been 289 and 333 in the preceding two weeks, declined again last week to 264, and exceeded by one the corrected weekly average. The causes of 84, or 2·4 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Bristol, Portsmouth, Brighton, Preston, and in six other smaller towns. The largest proportions of uncertified deaths were registered in Leicester, Nottingham, and Salford.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 21·3 and 22·6 per 1000 in the preceding two weeks, declined to 19·8 in the week ending June 4th; this rate exceeded, however, by 0·3 the mean rate during the same week in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 15·1 in Aberdeen and 17·8 in Perth, to 21·2 in Greenock and 22·3 in Leith. The 495 deaths in the eight towns last week showed a decline of 69 from the number in the previous week, and included 32 which were referred to whooping-cough, 5 to scarlet fever, 4 to measles, 4 to diarrhœa, 3 to diphtheria, 2 to "fever" (typhus, enteric, or simple), and not one to small-pox; in all, 50 deaths resulted from these principal zymotic diseases, against 72 and 82 in the preceding two weeks. These 50 deaths were equal to an annual rate of 2·0 per 1000, which was 0·9 below the mean rate from the same diseases in the twenty-eight English towns. The fatal cases of whooping-cough, which had steadily increased in the preceding four weeks from 31 to 43, declined again last week to 32, and included 11 in Glasgow, 10 in Edinburgh, 5 in Dundee, and 4 in Leith. The deaths from scarlet fever, measles, diarrhœa, and "fever," showed a considerable decline from recent weekly numbers. Three deaths from measles and 3 from diarrhœa occurred in Glasgow; and 2 of the fatal cases of scarlet fever were returned in Edinburgh. The 3 deaths from diphtheria included 2 in Glasgow. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 126 and 109 in the preceding two weeks, further declined last week to 102, but exceeded the number returned in the corresponding week of last year by 12. The causes of 64, or nearly 13 per cent., of the deaths registered in the eight towns during the week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 25·4 and 24·1 per 1000 in the preceding two weeks, further declined to 21·4 in the week ending June 4th. During the first nine weeks of the current quarter the death-rate in the city averaged 28·7 per 1000, the mean rate during the same period being but 18·5 in London and 19·6 in Edinburgh. The 145 deaths in Dublin last week showed a further decline of 18 from the numbers in the previous two weeks; they included 10 which were referred to measles, 4 to scarlet fever, 3 to "fever" (typhus, enteric, or simple), 3 to whooping-cough, 1 to diarrhœa, and not one

either to small-pox or to diphtheria. Thus the deaths resulting from these principal zymotic diseases, which had increased in the preceding four weeks from 19 to 27, declined again last week to 21; they were equal to an annual rate of 3·1 per 1000, the rates from the same diseases being 2·9 in London and 2·1 in Edinburgh. The fatal cases of measles, which had been 8 and 17 in the previous two weeks, declined again last week to 10. The deaths from scarlet fever exceeded the average numbers in recent weeks; while those from "fever" corresponded with the number in the preceding week. The deaths of infants showed a considerable increase, while those of elderly persons were fewer than in any previous week of this year. Five inquest cases and 3 deaths from violence were registered; and 30, or more than a fifth, of the deaths occurred in public institutions. The causes of 24, or more than 16 per cent., of the deaths registered during the week were not certified.

THE SERVICES.

WAR OFFICE.—Army Medical Staff: Surgeon-Major Frank Pout is granted retired pay, with the honorary rank of Brigade-Surgeon (dated June 4th, 1887); Surgeon-General Archibald Henry Fraser has been granted retired pay (dated May 18th, 1887); Surgeon-Major William Taylor, M.D., has been seconded on appointment as Surgeon to his Excellency the Commander-in-Chief in India (dated Dec. 26th, 1885).

ADMIRALTY.—The following appointments have been made:—Inspector-General of Hospitals J. Breatky, to Haslar Hospital; Staff Surgeon B. Renshaw, to the *Sylvia;* Staff Surgeon R. W. Williams, to the *Defiance;* Surgeon W. E. Spiller, to the *Duncan;* Surgeon N. H. Atock to the *Nelson;* and Surgeon John F. Bate, to the *Sealark* (dated May 23rd).

ROYAL ARTILLERY MILITIA.—9th Brigade, North Irish Division: Surgeon-Major A. Skipton resigns his commission (dated June 4th, 1887).

RIFLE VOLUNTEERS.—2nd Ayrshire: Acting Surgeon R. Girvan, M.D., to be Surgeon (dated June 4th, 1887); Surgeon R. Girvan, M.D., is granted the honorary rank of Surgeon-Major (dated June 4th, 1887).—1st Dumbartonshire: John Wylie, M.B., to be Acting Surgeon (dated June 4th, 1887).—1st Volunteer Battalion, the South Staffordshire Regiment: Acting Surgeon Thomas Edgar Underhill, to be Surgeon (dated June 4th, 1887).—6th (West) Suffolk: Edgar George Barnes, M.D., to be Acting Surgeon (dated June 4th, 1887); and Arthur Worlledge Aldrich, to be Acting Surgeon (dated June 4th, 1887).

Correspondence.

"Audi alteram partem."

THE HEREDITY OF TUBERCULOSIS.

To the Editors of THE LANCET.

SIRS,—The leading article on this subject in THE LANCET of last week induces me to offer the following remarks:—

The breeds of domesticated animals afford the best opportunities to trace the working of heredity, both physiological and pathological. The practice of breeding in-and-in is the one chief reason why heredity is so marked in cattle. Without entering on the abstract differences between an inherited disease and an inherited liability to fall into disease, I shall state an unambiguous case of inherited tubercle that happened lately within my experience. Being in the north of Scotland last Christmas, I went one day to see a relative who has a farm. He happened to mention that if I had come a day earlier I might have assisted at the post-mortem examination on a diseased calf. From what I learned on inquiry, I was led to request that the body might be dug up (it was merely buried temporarily under a mound of earth owing to the intense frost in the ground), and I was rewarded with a spectacle of bovine tubercle such as I had not seen before. All the serous surfaces of the abdomen were thickly studded with enormous sessile and stalked masses of rounded and flattened tubercles, like thick spelter buttons, with reddish lines of vessels on the grey surface. The calf was eight months old, and had never thriven, although it had lived through the best season of the year. The new growths, which were like flat sarcomata of dense texture, or like fibromata, as bovine tubercles often are, had every appearance of being a slow or chronic formation. The evidence of heredity was conclusive. This calf, as well as four others on the farm, was after a short-horn bull, which had begun to waste in like manner, and had been destroyed in his third year; and my informant assured me that the interior of the carcase presented just the same appearance as in the calf at that moment under our eyes. The bull had been purchased, when a calf, at the annual sale of young stock by a breeder of short-horns well known in the county. The four other calves by the same sire were in good condition; one of them had shown some joint weakness, which is occasionally an early indication of tubercle. The dam of the diseased calf, a short-horn cow without pedigree, did not appear to be ailing in any way. There is nothing unusual in this case, which came under my notice quite casually; veterinary surgeons are constantly meeting with facts of the same kind, and they seem to regard the tuberculous diathesis as part of the strain or breeding of such animals. Those of them who practise in breeding districts are well aware that the complete dispersal of a pure-bred herd is not unfrequently owing to the subtle invasion of hereditary tubercle among the stock from in-and-in breeding, and to the impossibility of eliminating it without a general clearance. Such of us as have not assented to Dr. Koch's upsetting doctrine of the parasitism of tubercle, do not find any great difficulty in dealing with the facts of heredity, or in finding a place for them in our synthetic judgment of the disease as a whole. I would respectfully ask those who are still uncommitted by any declaration on the point in question to consider once more on how slender a thread of experimental evidence Dr. Koch's allegation of "pure culture" of the tubercle bacilli rests. The New Sydenham Society has done a great service to the English profession in including Dr. Koch's memoir in the volume of essays recently translated under Mr. Watson Cheyne's editorship. Dr. Koch remains, I believe, still the only experimenter who has carried out the whole procedure from first to last, including the separation of the bacilli from the tuberculous substance in which they occur, and the inoculation of animals with the parasites in a state of purity, as he thinks. The evidence is thus to be found within narrow limits, and the crucial part of the evidence is all contained in a few sentences of the volume above mentioned.

I am, Sirs, your obedient servant,

London, June 6th, 1887. C. CREIGHTON.

"PLACENTA PRÆVIA."

To the Editors of THE LANCET.

SIRS,—The case of "Placenta Prævia" recorded in THE LANCET by Dr. B. Walker is another interesting illustration of the true physiological treatment which I have advocated for the last forty years, and which abundant clinical experience has substantiated. "Blood was flowing freely, and complete placenta prævia was present. Introducing the hand," says Dr. Walker, "into the vagina, *and detaching the placenta*, a vertical presentation was found, and with two fingers in the uterus and the right hand on the abdomen, combined version, after Braxton Hicks's method, was quickly and easily performed and a foot brought down, thus plugging the cervix and causing the hæmorrhage to cease, the whole being done in five minutes. The woman was left comfortable. . . . . The delivery was completed spontaneously after twelve hours."

I submit that the just commentary upon this case is that the hæmorrhage ceased because the placenta was detached from the lower or dangerous zone of the uterus, which allowed the os and cervix to expand; that the subsequent bipolar turning, although the case ended happily, was not clearly the cause of the arrest of hæmorrhage by plugging; that unless the uterus contracted to force the breech upon the lower segment of the uterus the breech could not act as a plug, since it was not kept in contact with the bared surface by being dragged down upon it; and that experience amply proves that, if there be contraction, this is enough to arrest the hæmorrhage.

Dr. Walker holds, as Sir James Simpson held, that the life of the child was of secondary importance. In this I quite agree. But was the child's life incompatible with saving that of the mother? When the head presents, it is surely better to dilate the cervix with my hydrostatic bags, which

plug even better than the child's breech, provoke uterine activity, and give the opportunity either for spontaneous delivery by the head or by the forceps, either of which gives a much better chance of saving the child without compromising the safety of the mother. The combined method of turning comes in admirably in some cases, but it is only an application of this proceeding. It cannot be regarded as constituting by itself the rational treatment of placenta prævia. I am, Sirs, yours truly,

Harley-street, June 6th, 1887. ROBERT BARNES.

"A SUGGESTED IMPROVEMENT IN ETHER INHALERS."

To the Editors of THE LANCET.

SIRS,—Under the above heading, Mr. Rickard W. Lloyd, in an interesting communication in your issue of May 28th calls attention to a possible danger of Clover's ether inhaler, and he suggests that the anæsthetiser should possess and use a number of indiarubber bags to minimise the risks of transmitting disease from one patient to another.

Mr. Lloyd, as, I believe, all who administer ether will allow, has put his finger upon the weak part of Clover's inhaler, which is the bag. Unless the apparatus is in constant use the bag gets out of order. In hospital practice, and in the practice of surgeons who have much operating, it is tolerably easy with care to maintain the bag in good order; but even then holes will mysteriously and unaccountably appear in it. But the general practitioner, who has to let his apparatus lie on the shelf for an unknown length of time, too often finds, when he requires it on an emergency, that the bag has stuck together, and can only be opened up at the cost of tearing, or has already several perforations in it, and then sticking plaster or other tinkering expedients have to be used to render the apparatus temporarily workable. Regarding the carbonic poisoning which the bag of Clover's apparatus causes in greater or less degree, I refrain from expressing an opinion, as I have heard it condemned on the one hand as a danger, and extolled on the other as a virtue, by competent authorities. I would, however, ask those who approve this carbonic acid poisoning if, supposing they were about to inhale ether, they would give instructions to the anæsthetiser to allow their own blood to become carbonised, or whether they would not, on the contrary, prefer that their blood should be as free as possible from this noxious gas, and consequently the action of the right side of the heart be impeded as little as possible? Deaths from ether are unfortunately not unknown, and it behoves us to adopt every measure to render its administration safe as well as effective. For some time I have been making trials with an apparatus which Messrs. Mayer, Meltzer, and Co. have constructed to my order, which, whilst doing away altogether with the bag, retains all the useful features of Clover's apparatus. The patient never re-breathes expired air, and the danger pointed out by Mr. Lloyd cannot therefore occur. My trials and experiments are not yet complete, but I hope that the firm mentioned may soon be able to offer to the profession an efficient and handy inhaler which will surmount Mr. Lloyd's difficulties even more satisfactorily than his own suggestions do.

I remain, Sirs, your obedient servant,

NORMAN PORRITT,

May 31st, 1887. Hon. Surgeon, Huddersfield Infirmary.

THE HOVE INFECTIOUS HOSPITAL.

To the Editors of THE LANCET.

SIRS,—As it is your practice in all disputed cases to give facilities for "the other side" to obtain a hearing, I trust that you will permit me, as one of the laymen whom you condemn in your article of May 28th for directing public attention to the alleged defects at the Hove Sanatorium or Infectious Hospital, to offer a few remarks by way of explanation. In the first place, these "laymen," whilst claiming no great or extensive sanitary knowledge, have had considerable experience in hospitals and hospital management. General Shute, C.B., both in the Crimea and in India, learnt much practical knowledge in field and other hospitals, and, without being an "expert," now possesses valuable experience on the subject. I am no novice in hospital management, having for many years been interested and concerned in hospital government. At the present time I am one of the house committee of the largest hospital in London. Therefore, feeling ourselves qualified to form an independent opinion, we ventured to criticise the report of the local medical officer, who stated that "all the requisites of an institution of the kind were all that can be desired." I have no intention of giving in detail the deficiencies to which we ventured to direct attention; it will be sufficient for me to say on this occasion that we complained of defects in the arrangements (owing to the peculiar site on the downs), of defects in the condition of the building, and of deficiencies as regards certain sanitary appliances. We are confident that these defects would be admitted by competent and independent sanitary authorities. We are anxious only for the truth as to the facts and for efficiency as to the hospital, and we desire competent inspection, and fully believe that we shall thereby obtain confirmation of our criticisms. We have a duty to our constituents which we are anxious to fulfil. A large sum of public money has been expended on this hospital; our constituents are rated for its repayment. They deserve an efficient hospital for their outlay, and, conscientiously believing that at the present time the hospital is not in a satisfactory condition, we ventured to raise our voices against the optimistic report of the medical officer, feeling sure that the public attention thus aroused would ensure the removal of the defects of which we had complained. In conclusion, I may add that the cost of remedying these defects would only amount to an inconsiderable sum of money. Under the circumstances, I trust that you will regard our conduct as deserving of praise and not of blame, and that you will assist us and not add to our difficulties in rendering this hospital thoroughly efficient.

I am, Sirs, yours truly,

Brighton, June, 1887. ALFRED G. HENRIQUES.

*** We took no exception to a mere endeavour to remedy such defects as may exist in this hospital, but we do not admit that some of the conditions which were alleged to indicate defects are faults at all. Mr. Henriques brought forward statements calculated to damage the hospital in the minds of the general public, and thus to hinder the very object for which it was erected. He is also reported to have objected to its ventilation, to have said that "the arrangements.....were the very reverse of what such an institution should possess".....and "were as bad as they could be"; and he spoke of its "fatal objections." We deny the accuracy of such statements, and, in answer to them, we would quote the following authorities, who have at least equal knowledge with Mr. Henriques as to what are the requirements of an infectious hospital. Dr. Ewart, chairman of the Brighton Sanitary Committee, says: "The ventilation is excellent"; and he adds that "with proper care and management.....your building.....will prove a great benefit to the town." Dr. Kelly, medical officer of health to West Kent, says: "On the whole, the building seems to have been carefully planned, and to be well adapted for use as an infectious hospital." Such statements alone suffice to show how unwise was the wholesale condemnation of the hospital which was made public last month.—ED. L.

THE VALUE OF DRUGS.

To the Editors of THE LANCET.

SIRS,—The remark of Sir William Gull at the recent meeting of the Medical Council has elicited considerable correspondence on the value of drugs in the treatment of disease. I have no doubt he never intended that his remark should be taken literally, but only that it should be a strong blow at the system of empirical treatment pursued principally by dispensing chemists over the country. Every medical practitioner must have noticed how much faith the uneducated place in a bottle of medicine, and must also be aware how some dispensing chemists and all quacks pander to this taste. There is in this way many a shilling wasted in medicine that might have been well spent in a good beef steak or coal for the fire. Medicine is seldom the most important part in the treatment of disease, and it is of the utmost importance for us at all times to impress this upon our

patients. I expect that few men give the large quantities of medicine that was common some years ago, and the simplicity of prescriptions is an important step in the right direction. For these things the profession and the public are indebted to men, such as Sir William Gull, who advocate a rational mode of treatment, and who have done so much to abolish that system of rough treatment now even dying out of the veterinary profession. I have no doubt Sir Wm. Gull will believe in the use of medicine properly administered as sincerely as any of us, but it is only leading men like him who can take a stand with general advantage for truth and common sense.—I am, Sirs, yours faithfully,

Hawick, June 6th, 1887. JOHN R. HAMILTON, M.D., &c.

ROYAL COLLEGE OF SURGEONS: THE PETITION.

To the Editors of THE LANCET.

SIRS,—At last the draft of the petition of the Council of the Royal College of Surgeons (Eng.) has appeared, and, as was to be expected, it contains none of the reforms demanded both by Members and by a considerable proportion of the Fellows of the College. There is no provision made for an annual general meeting of Fellows and Members, and none for the admission of Members to the Council or to a share in its election. After nearly 5000 Members of the College have expressed their opinion that such alterations as those we have just cited are desirable, and after their petition to that effect has been presented to the Privy Council, it seems quite impossible that the College Council can obtain such a Charter as that for which it is now petitioning. At all events, the Members having, over a month ago, lodged their petition with the Privy Council, and having asked to be heard in this matter before any new Charter is conferred, we can assure the Council of the College that every endeavour will be made by the Members to secure the reception by the Privy Council of an influential deputation in their behalf. We are, Sirs, your obedient servants,

June, 1887. W. C. STEELE, W. A. ELLIS, } Hon. Secs., Assoc. M.R.C.S.

THE PROFESSION AND THE PEERAGE.

To the Editors of THE LANCET.

SIRS,—There is a proud self-respect in our profession which forbids us, individually or collectively, claiming any public recognition of our efforts to promote the public good. Virtue is, no doubt, its own reward; but the area of usefulness frequently bears some proportion to the power and influence of those desirous of being useful, and social power, like any other force, does not lose in momentum by having to filter through all strata of society from an exalted position. The immediate object of this metaphorical statement is to give utterance, through the influential medium of your journal, to a notably widespread feeling in the profession that something should be done to call attention in the proper quarters to the desire of many of its members that, in the celebration of the Jubilee of our gracious Sovereign, a medical peerage should not be conspicuous by its absence. It will not be fruitful to inquire why this country should be singular in excluding from the ranks of its nobility a body of citizens who cannot on any grounds be considered socially inferior to many of those who are periodically raised to the Upper House. Nor is it needful that the services medicine and surgery have rendered to the State and to mankind during the last fifty years should be enumerated at length. They are well known and recognised by the Faculty, and the State and individuals have no excuse for ignoring them. I feel sure that I speak for many when I say that no honour would be appreciated more highly, or received more enthusiastically by the profession, than that which could be done it in the person of one or more of its representative members, by their being raised to the peerage of the United Kingdom. I trust that your influential and judicious advocacy may render a medical peerage one of the essential features of the Queen's Jubilee.

I am, Sirs, yours truly,

June 6th, 1887. ASCLEPIAD.

To the Editors of THE LANCET.

SIRS,—An opportunity for Her Majesty is afforded by the approaching Jubilee to show her appreciation of the valuable services rendered by our profession to herself, to the members of the Royal Family, and to all classes of Her Majesty's subjects, including the very poorest. It would be a most graceful acknowledgment of such services for special honour, and that honour a peerage, to be conferred on the chief representatives of the medical and surgical professions.

I am, Sirs, yours truly,

June, 1887. A COUNTRY SURGEON.

THE COLLEGE OF SURGEONS' EXAMINATIONS.

To the Editors of THE LANCET.

SIRS,—I have no desire to increase the terrible ink-shed with which Mr. Heath's strictures on the College of Surgeons' examinations have deluged your columns. But, as one who has just emerged from the fiery ordeal of the combined examinations, I trust you will permit me to state the case from the successful candidate's point of view.

The cases cited by your correspondent, Mr. F. J. Smith are only such as constantly occur within the experience of every student. The "good men" sometimes go down like ninepins, and the "duffers" are successful. Why? Simply because the latter answer the questions which the former are ignorant of. Granted that a good man is now and then plucked, my own experience shows that in nine cases out of ten he well deserves his fate. If, as Mr. Smith says, every man has his weak point, he should do his best to remedy it, or else not complain if he is given six months in which to do so. The examiners can only judge of him as they find him. Mr. Smith appears to think his third and fourth cases have been hardly used. But I submit that if a man who is shaky on such a subject as fracture of the base is allowed to write "F.R.C.S. Eng." after his name, the diploma will soon cease to be regarded as the highest surgical qualification in the world. On the first occasion on which I presented myself for the final M.R.C.S., I was referred for six months, and, as is usual and quite natural, thought myself very unfairly treated. But, on reviewing the various incidents of the examination during the period thus afforded me for mature reflection, I was obliged to own that I had been asked straightforward questions, to which I could only return unsatisfactory answers. Curiously enough, I also came a cropper over cranial fractures, or, as Mr. Smith would put it, "the examiner had found my weak point, and had pressed me on it to the total exclusion of all other subjects." I have heard of a man who was never able to pass because the examiners would ungenerously persist in asking him the very things he did not know. For my own part, I have always felt that the gentlemen who did me the honour of examining me were the heads of the profession which I, a raw recruit, was endeavouring to enter. It would be invidious for me to mention the names of individual examiners, but I may say that, treating them with respect, I have ever received kindness and consideration. I say emphatically, after two experiences, that I consider the final M.R.C.S. examination to be honestly and fairly conducted; and, in conclusion, that I have never known a so-called "good man" to be referred unless, by his own admission, he had been guilty of some breach of that submission which, as a student, it was his duty to accord to his examiner.

I am, Sirs, your obedient servant,

June 4th, 1887. L.R.C.P., M.R.C.S.

MANCHESTER.

(From our own Correspondent.)

OWENS COLLEGE.

ON Saturday last the members of the professorial staff of the College, with members of the Council and other friends, met at the College to do honour to Sir Henry Roscoe, who has lately severed his connexion with it as a teacher after having for so many years presided over and brought the chemical department to its present efficient state. Unfortunately Sir Henry Roscoe was prevented by severe indisposition from leaving his house on that day, so that the ceremony of presenting an address and unveiling a portrait of their late colleague subscribed for by the professors was somewhat shorn of its interest. Professor Greenwood gave an appropriate address, briefly reviewing the work of Sir Henry during his thirty years connexion with the College, and unveiled the portrait, which was then presented in the

name of the professors to the Council, being received by Mr. Oliver Heywood on behalf of the latter body. Amongst other matters which Sir Henry has recently been inquiring into during his recent short stay here has been the question of the sale of butterine, making himself familiar by personal inquiry and investigation with all the trade details of the same, with a view to the proposed legislation on the subject. Amongst "the trade" of the district much adverse criticism has found its way into the public press concerning the provisions of the Bill now before Parliament, dealers asserting that the article known as butterine is a good and wholesome food, and that the Adulteration of Food and Drugs Act provides ample protection to purchasers if properly put in force.

JUBILEE EXHIBITION.

The Jubilee Exhibition opened last month by the Prince and Princess of Wales is proving a great success. The chemical, sanitary, and dietetic exhibits are of considerable interest from a medical point of view, and a short description of some of them will find a place in the near future in these columns. Amongst "the machinery not in motion," a railway invalid carriage will no doubt attract the notice of the profession. It is sent by the Lancashire and Yorkshire Railway Company, and is fitted up with every convenience for the removal of a patient with the least possible amount of discomfort. A small fixed bedstead is in one corner, with movable table, rests, and supports, a small ante-room for friends or attendants at one end, and a lavatory, &c., at the other.

HOSPITALS.

The proposed extension of the Fever Hospital belonging to the Royal Infirmary is meeting with considerable opposition, and the Newton Heath Local Board, in whose district the hospital is situated, at their last meeting peremptorily called upon the infirmary to suspend all further building operations until such time as the plans, &c., had been approved by them, which plans they at present decline to pass. The neighbouring borough of Salford at their last council meeting had a discussion on the following proposition: "That by way of commemoration of Her Majesty's Jubilee, the council be recommended to assist the Health Committee in the erection of a new hospital for infectious diseases, to be called the Victoria Hospital." It was suggested that a town's meeting be called to consider the subject, but the motion was eventually lost. It is thought that the proceeds of the old fever hospital in Cross-lane—i.e., £21,000—should provide a new hospital without any special appeal.

HEALTH REPORT FOR 1886.

The officer of health for the city has just published his annual report for last year. Again Manchester shows an exceedingly high death-rate, it being 24·69 per 1000 per year. The mortality from scarlet fever was double that of the previous year, 188 deaths being recorded from it, notwithstanding the removal to hospital of a large proportion of the sufferers. From small-pox no death occurred. The officer of health devotes some considerable space to the question of air impurity, and considers that the Health Committee should now devote much of its energies in endeavouring to render the air more pure, in the crowded streets and alleys alike, and the inside of many of the worst dwellings, where proper ventilation is impossible and cubic space per occupant sadly deficient. At the present time both scarlet fever and measles are exceedingly prevalent. The death-rate for the first quarter of the present year from the seven common zymotic diseases was equal to 3·8 per 1000 per annum.

June 7th.

CITY ORTHOPÆDIC HOSPITAL.—The thirty-sixth anniversary festival in aid of the funds of this hospital was held on the 8th inst., the Duke of Grafton presiding. Since the institution has been in existence 52,000 cases of deformities have been treated, the number of patients who received relief during last year being over 3000. In the course of the evening the secretary announced subscriptions and donations amounting to between £900 and £1000.

THE annual festival dinner in aid of the funds of the North London Consumption Hospital will be held on the 15th inst., at the Langham Hotel, under the presidency of Mr. F. D. Mocatta.

LIVERPOOL.

(From our own Correspondent.)

A SATURDAY NIGHT AT THE ROYAL SOUTHERN HOSPITAL.

THIS hospital is situated in the midst of what is known as Toxteth-park—a great misnomer, being composed largely of streets, many of which are of a character the very reverse of sanitary, and tenanted by a very low class of inhabitants. As a consequence of this, Saturday night is always more or less a busy night at the hospital, and Saturday, June 4th, was one of the busiest ever known since the hospital was opened. From early on Saturday night till early on Sunday morning about fifty cases were admitted and treated, two proving fatal: one was that of a man who fell down in the street in a fit, was found lying insensible by a policeman, and on reaching the hospital was found to be dead; the other was that of a child three months old, which was taken to the hospital by its mother, expiring in her arm on the way there. In addition to these, a woman was admitted with a wound in the thigh, a man with a fractured leg, a woman suffering from severe burns, a woman with serious injury to the back, and a man with severe injuries to the head.

BEQUESTS TO LOCAL HOSPITALS.

Under the will of the late Mrs. Anna Maria Heywood, widow of the late Mr. John Pemberton Heywood of this city, the Royal Infirmary and the Northern Hospital, Liverpool, each receive legacies of £1000. It is expected that the local medical charities will benefit largely under the will of a former wine merchant in this city, who has bequeathed the bulk of his estates, amounting to a very large sum, to local charities.

HOSPITAL SUNDAY AND SATURDAY.

It was recently proposed to change the date of Hospital Sunday from the second Sunday in January to some Sunday in May. Endeavours were made to ascertain the opinions of the clergy and ministers of all churches and chapels wherein collections had been made as to the desirability of a change of date; and in the event of the change being deemed advisable, then as to which month the collections should be transferred to. The replies were so evenly balanced that it was thought safer to leave matters as they are. The Hospital Saturday Fund already exceeds £2000, and more contributions have yet to be announced.

THE LATE BISHOP OF SODOR AND MAN.

The announcement of the death of the Right Rev. Dr. Rowley Hill, Lord Bishop of Sodor and Man, was received in this city with much surprise. The late Bishop was a man of very great physical strength, and up to within a few days of his death presented the appearance of a man in the prime of robust healthy manhood, his age being fifty-one. For some days before his death he had been indisposed, which had induced him to give up engagements in Sheffield as well as in the Isle of Man and to remain in London. On Friday, the 27th ult., he suddenly grew worse, became unconscious about noon, and died the same evening. The reports as to the cause of his death differ. It was at first stated to be congestion of the liver; another and later account in the *Isle of Man Times* states that "he had for some time suffered from kidney disease, and a few days before death there were evidences of the presence of diabetes. The more immediate cause of death, however, is considered to have been extravasation of blood on the brain." His mental powers would appear to have been unaffected almost up to the last, and he preached in the very church where only a fortnight later his remains were taken previously to interment.

POISONOUS REFUSE.

From time to time cases occur of wholesale poisoning, fortunately seldom fatal, arising from the very objectionable practice which prevails here of depositing among ship and warehouse refuse nuts of a poisonous nature. Some years ago a number of children were poisoned by eating Calabar beans, one boy dying. Within the last few days a number of children were taken to the Royal Southern Hospital suffering from symptoms of poisoning in consequence of their having eaten some nuts which they found in a heap of rubbish. The nuts were stated to be croton oil nuts. The children suffered from acute pains in the stomach accompanied by nausea and vomiting, but recovered.

Liverpool, June 7th.

EDINBURGH.

(From our own Correspondent.)

ALBUMINURIA IN THE APPARENTLY HEALTHY.

AT the last ordinary meeting of the Royal Society of Edinburgh a paper on the Discharge of Albumen from the Kidney in Healthy People was read by Professor Grainger Stewart. The paper contains the results of an extensive research carried out in relation to varied classes of the community. Professor Stewart comes to the conclusion that in the community generally the average of those who have albuminuria is about 30 per cent.; in military life the proportion is larger than amongst civilians, and with advancing years there is a marked increase in the proportion. In all classes he finds an increased number showing albumen after breakfast, as compared with what obtains before that meal. While healthy moderate exercise, as in the weekly march-out of the garrison, decreases the number in whom it is present, excessive muscular exercise, as seen in fatigue duty, largely increases the proportion of men showing albuminuria. Several other phases of human activity have been investigated in the same way, and yield most interesting results. Some of the general conclusions at which Professor Stewart arrives are the following:—That there is no sufficient proof that albuminuria is a normal condition in the human subject, but that it is a much more frequent phenomenon in the apparently healthy than was formerly supposed; that it increases in frequency as life advances, and is more common in those who lead laborious lives than in others; that moderate exertion decreases the phenomenon, whilst excessive work produces an increase, as does also cold bathing in certain individuals; and, finally, that the existence of persistent albuminuria is not *per se* a sufficient ground for the rejection of a proposal for life insurance. The paper, which was richly illustrated by tables, giving a complete analysis of the results, was very favourably received by the Society, and its author was congratulated upon the comprehensive and valuable nature of his research.

THE PRESENCE OF BACTERIA IN FISH.

At the same meeting of the Royal Society a paper on the existence of Bacteria in Living Fish was presented on behalf of Professor Ewart. A variety of species of micro-organisms are constant inhabitants of the majority of fresh-water and sea fish alike, the skate, dogfish, and some other species being, however, exempt. A considerable number of organisms may be present in the blood, lymph, and peritoneal cavity without any apparent interference with the vitality of the animal. Under a variety of depressant conditions the number of these bacilli increases: thus starvation, confinement in aquaria, and a rapid, though moderate, rise of temperature produce this effect, and the increase, if considerable, is accompanied by symptoms of languor and, in many cases, the death of the fish. The exact species of bacilli discovered have not as yet been classified; experiment shows, however, that they are not of ordinary putrefactive varieties, while the clinical evidence equally excludes them from the group of pathogenic microbes.

THE MEDICO-CHIRURGICAL SOCIETY.

At the recent meeting of this Society some interesting cases illustrating the condition of word-blindness were exhibited by Dr. Byrom Bramwell, who gave a valuable clinical demonstration of the main symptoms in two of his patients. Mr. A. G. Miller showed two patients who made an excellent recovery after operations for the relief of intracranial suppuration. Dr. Foulis exhibited a new and useful apparatus for the irrigation of the bladder, and a new form of obstetric forceps. A paper was read upon some Poisonous Products of an unusual nature present in Human Food, detailing the results obtained by Drs. Philip and Hare in a recent case of poisoning that occurred in Carlisle. Dr. Philip succeeded in separating from some ham, the material suspected, an extract poisonous to frogs, and producing symptoms in the human subject suggestive of irritant poisoning, and resembling those observed in the large number of patients who suffered after the ingestion of portions of the ham in question. Microscopic examination showed the presence of micrococci in the ham, but no bacilli were discovered resembling those present in the Wellbeck case which occurred in 1880, where poisonous ham was found to be the cause of the outbreak. A special meeting of this Society is to be held early in July, to discuss the subject of scarlet fever in relation to the recent epidemic in Edinburgh, and specially with regard to questions of the etiology of the disease now exciting such great interest.

Edinburgh, June 7th.

DUBLIN.

(From our own Correspondent.)

ROYAL COLLEGE OF SURGEONS.

THE contest for the vice-presidency of the College which took place on Monday last excited unusual interest, as it was known that it would be a close one. Mr. Fitzgibbon, the successful candidate, polled 126 votes, against 102 obtained by his opponent, Mr. Croly. As regards the Council, all the outgoing members who offered themselves were re-elected, with the exception of Mr. Story; while two new members have been added—viz., Mr. Frazer and Mr. Kendal Franks. More than a month since, when writing on this subject, I mentioned Mr. Franks as certain of success, and the result has justified my expectation. An unusual compliment was paid Mr. Frazer by electing him on his first attempt, and he will, I am convinced, prove a formidable opponent to Mr. Meldon in the contest for the vice-presidency next year. The votes at the meeting last Monday were the highest ever recorded, and numbered 230. At the annual meeting of the College on Saturday an animated discussion took place in reference to the proposal for amalgamation between the Carmichael College and the College School. The matter is referred to more fully in another column, and I only allude to it here to remark that the debate would not have suffered by the admixture of a larger proportion of the elements of courtesy and toleration on the part of some of the speakers than was manifested on the occasion. By the recent rules of the Council the examiners in anatomy and surgery, who were appointed on the 31st ult. for the ensuing year come under different arrangements as regards their emoluments, which has caused considerable dissatisfaction to those most interested in the matter. Previously the eight examiners in these subjects received equal remuneration, but now two examiners only in anatomy and two in surgery will as a rule be actually employed. The two other examiners in these subjects, whom I shall style assistant examiners, are only expected to act during the sickness or absence of the others, and to examine candidates for fellowship. It follows that almost all the fees from candidates will go to the acting examiners; and, on the other hand, the assistant examiners will neither have much honour or profit. For, taking the average annual number of Fellows admitted to examination, the remuneration of each assistant examiner will probably not exceed from £10 to £15 per annum. I believe it is not at all improbable that one, if not more, of these assistant examiners will shortly resign his post.

DUBLIN HOSPITALS COMMISSION.

It is authoratively stated that no steps will be taken by the Government, at least for this session, to carry out the recommendations of the Dublin Hospitals Commission. This is a result which probably will not cause much surprise, a feeling existing to a very general extent that such would be the case.

HOSPITAL FOR INCURABLES.

An appeal is being made by the governors for funds to carry out a design formed to extend the usefulness of this excellent institution. It is contemplated to add a new wing for the treatment of patients suffering from cancer and phthisis. It will be called the "Victoria Jubilee Wing," and I am in a position to state that his Royal Highness Prince Albert Victor, on his approaching visit to Dublin, will lay the foundation stone of this addition to the hospital.

THE JACOB TESTIMONIAL.

An address with a purse containing £500 was presented to Dr. A. H. Jacob at the College of Surgeons on Monday last. The address was read by Dr. Mapother, and Dr. Jacob having made a suitable reply, the proceedings terminated. The address, it may be mentioned, was signed by over 400 medical practitioners.

I am informed that Sir William Stokes and Prof. Edward Hamilton have been appointed coadjutor examiners in Surgery for the Apothecaries' Hall of Ireland.

Dublin, June 7th.

PARIS.

(From our own Correspondent.)

PARALYSIS FROM EARTHQUAKE ELECTRICITY.

A COMPLETE account of the effects of the Nice earthquake from a medical point of view has yet to be written. In the meantime, facts of the highest interest are recorded by different observers. I have seen several cases of pulmonary disease which had been progressing satisfactorily up to that time, and in which the agitation attending the disturbance inflicted an irrecoverable shock to the nervous system. One lady has come under my care whose menstrual period, just commencing when the first shock occurred, was immediately checked. A month later the catamenia were restored by uterine faradisation, the discharge, which had not been preceded by the usual premonitions, occurring within a few hours of the application. Similar phenomena have been recorded by others. Dr. Onimus relates a case of nervous disturbance (Société de Biologie) of unusual interest. The subject was a strong vigorous man, not easily impressionable and incapable of deceit. He was at the time in charge of a fort. There were, it will be remembered, three distinct commotions, the strongest at six, another soon after, and a third, much weaker, at nine o'clock. The patient was sending a telegraphic message, and, happening to have two points in contact with the metal of the transmitting apparatus, felt a violent shock, and lost consciousness for ten minutes. During the remainder of the day he felt giddy and weak, but has no recollection of *phosphènes* at the occurrence of the shock. Two months later he complained of constant headache and fibrillary contractions in the muscles of the limbs. The right arm was paretic, and the extreme weakness was confirmed by the dynamometer. Besides tremor and painful localisations along the median nerve, there was a considerable decrease of sensibility, the finger-tips scarcely recognising a separation of twelve millimetres between the points of the compass. The paralysis of the face was on the left side, and consisted of ptosis, accompanied by blepharospasm. This crossed or alternate paralysis is what is seen constantly as a result of a powerful electric shock; but in this case the symptoms have been more serious and persistent. At the present time there is little if any improvement. The reappearance of Dr. Onimus, whose communication was received with the greatest attention, was hailed with pleasure by the Society, the more so as it has been reported of late that the health of the eminent electrician had been failing.

EPIDEMIC PNEUMONIA.

M. H. Rondet of Lyons has given particulars of two epidemics of *fluxion de poitrine* that have come within his experience. The first occurred at Fleurien-sur-Saône, a little village about ten miles north of Lyons. The disease made its appearance on March 29th, 1882, the weather being cold and misty, and the epidemic was confined to the inhabitants of a house jointly occupied by the school teachers and rural police and their visitors. Of ten patients attacked four died. The second outbreak was at the vagrants' depôt at Albigny, which comprises a population of from 630 to 650 individuals, divided into two categories, those who have entered voluntarily and those who have been sentenced to a short imprisonment for begging or vagrancy. The epidemic lasted five months, and was extremely fatal, fifty-nine deaths occurring in seventy cases. An attentive study of the conditions of development of the disease showed that its intensity and duration were in proportion to the vitiation of the atmosphere and the defects of the sanitary surroundings. The contagion was most dangerous in the dark, unventilated apartments, and there was no doubt as to the infectious nature of the disease.

ACUTE GLANDERS.

Dr. Dhoste, the medical officer of the steamer *St. Germain*, running between St. Nazaire and Vera Cruz, states that one of the passengers, a Spaniard, who embarked in perfect health at Havannah, began to show symptoms of acute glanders five days later. No treatment was of any avail, and the patient was landed in a dying condition at Santander.

SANITARY PRECAUTIONS FOR MARSEILLES.

The town council of Marseilles has passed a resolution that it is desirable for the troops returning from Tonkin and other colonies where epidemic diseases are constant to be landed at the quarantine stations of Port Cros and Bazan, instead of Marseilles. It is probable that the different administrations concerned in the matter will acquiesce in this view, and disembark the men, in the first instance, at some point in the island of Hyères.

GASEOUS RECTAL INJECTIONS.

At the congress of the delegates from the learned societies held last week at the Sorbonne the question of gaseous enemata came under discussion. M. Lamallerée said that, judging from his own personal experience, gaseous injections were inefficacious when there existed cavities, but in other stages of the disease (phthisis) they were useful. To be successful no precaution should be neglected. The improvement obtained consists in suppression of the fever, sweats, and oppression; the general health becomes more satisfactory, and the stethoscopic signs are modified. M. Lamallerée stated that he had been able to infect chickens with tubercle by mixing the expectoration of bacillary phthisis with their food, but not when the sputa came from patients under the treatment. In other diseases of the lungs this method gives rapid and durable results.

Paris, June 8th.

AUSTRALIAN NOTES.

(From our own Correspondent.)

MALPRACTICES IN NEW SOUTH WALES.

As a sequel to the case of Dr. Russell of New Zealand, which I referred to in my last letter, I have two more cases in New South Wales to relate. Encouraged apparently by the very easy way in which abortion-mongering is regarded in the colonies, this crime seems to be increasing in frequency. A case of the kind has recently occurred at Redfern, a suburb of Sydney, where a Dr. Sabatowski (with a German degree) had operated on a young single woman, and made a laceration of the uterus six inches in length, death ensuing within twenty minutes of the operation. The person in question escaped terrestrial justice by committing suicide, taking poison out in the bush, where his body was subsequently found. Another man, this time without a qualification, has introduced a novelty in gynæcological science by performing craniotomy with "a chisel, a screwdriver, and a pair of pincers, borrowed from a blacksmith." The woman died, but as the "obstetrician" charged only 30*s.* for the operation nothing more could reasonably have been expected. No inquiry was held, and reasons have been asked from the coroner for such non-action by the Minister of Justice.

A QUEENSLAND UNIVERSITY.

The first steps towards the formation of a university were inaugurated by a meeting of gentlemen summoned by the Chief Justice to consider the question, when it was decided to draw up a petition to the Government—to be signed by doctors, clergymen, lawyers, corporations, schoolmasters, &c.—to take steps to carry out that object by the necessary grants, &c.

QUEENSLAND BOARD OF HEALTH.

This board have been trying to make the public believe they are an energetic body, by going as a deputation to the Colonial Secretary and asking for executive powers to be granted to them, as they at present only possess the power of "making recommendations." The Minister, however, pointed out to them that they had made such very little use of what power they had, that he did not feel inclined to recommend their being granted any more. As a fact, it is a decrepit and useless board, and would be most beneficially replaced by an experienced, scientific, well-paid medical officer of health imported from England, with special sanitary knowledge; and this is what will eventually have to be done.

TOWNSVILLE (QUEENSLAND) HOSPITAL.

The authorities of this institution have recently decided to appoint a resident surgeon-superintendent, in place of a paid visiting surgeon. This, as the metropolis of the future colony of "Northern Queensland" (the separation of which is bound, in common justice to the North, to ensue), is an important town and the centre of a very large tract of country, the hospital thus offering great advantages of practice; and I expect the appointment will be warmly competed for.

SYDNEY UNIVERSITY.

The following gentlemen have been appointed examiners for the third examination for the degree:—In Medicine: C. M'Kay, M.D. Surgery: A. Renwick, M.D. Midwifery: C. K. M'Kellar, M.D. Medical Jurisprudence: H. N. M'Laurin, M.D. Psychological Medicine: Sir A. Roberts, M.R.C.S.

SYDNEY HOSPITAL.

This hospital is still in a most unsatisfactory condition. The present wooden structure was put up as a temporary building ten years ago, and has long been condemned as utterly dangerous in case of fire. The late Premier, in a note which he left for his successor at the late dissolution, spoke of the patients in it as liable to "wholesale destruction" in such an event. The new site is considered by the Government unsuitable; hence the delay.

DEATH FROM CHLOROFORM.

A man died in the Sydney Infirmary recently whilst being operated on for a crushed hand, under the influence of chloroform. Three drachms were used in about five minutes, administered by means of a perforated leather mask containing a piece of sponge. One minute after the inhaler had been removed the heart stopped. Hypodermics of ether and galvanism were resorted to, but without avail. Dr. Knaggs, President of the New South Wales branch of the British Medical Association, said that, in his opinion, fatty degeneration of the heart was the cause of death.

POISONING BY ORNAMENTAL BISCUITS IN MELBOURNE.

Several children have suffered from all the symptoms of irritant poisoning lately after eating ornamental biscuits. These were found on analysis to contain arsenic and copper in the colouring matter, and the manufacturers, at the instance of the Central Board of Health, were fined £20 and costs.

In Melbourne two hundred and thirteen cases of typhoid were reported from March 1st to 24th, of which fifty-eight were fatal.

THE NEW ZEALAND POISONER.

Hall, who was convicted of the murder of his father-in-law on the clearest evidence, has escaped capital punishment by a legal technicality. The conviction for murder has been quashed on appeal, on the grounds that part of the evidence on which he was convicted of the murder of his father-in-law had been used at the previous trial, when he was convicted of the attempted murder of his wife, and was therefore inadmissible. Thus, by a legal quibble, a scoundrel has escaped justice, than whom no more cruel or cold-blooded Brinvilliers ever existed. What little consolation there is to be got out of this case lies in the fact that his "life" sentence for the attempted murder of his wife stands good, and no Minister of the Crown is ever likely to commute his sentence.

BRISBANE MORTALITY.

Out of 120 deaths for the month of February seventeen were from typhoid. As Dr. Thomson pointed out at the last meeting of the Board of Health, the mortality among young children in Brisbane is abnormally high. Of course the late weather has been against them, for the rains have been continuous for the last three months, and floods have occurred everywhere.

Dr. A. Ross has been returned for Molong at the general election, Dr. W. C. Wilkinson for The Glebe, and Dr. W. R. Cortis for Bathurst. Of course, Drs. M'Kellar and Creed still hold their seats in the "Lords."

The Hon. C. K. MacKellar, M.L.C., has just left Sydney on a visit to the old country, and (if he finds it possible) to America. He has done well, professionally and politically, out here, and is worth welcoming as a very creditable representative of the profession in Australia.

The medical men of Launceston, Tasmania, have unanimously protested against the sewage being drained into the river. Typhoid is prevalent there.

March 31st.

THE DEER IN RICHMOND PARK.—On the 8th inst. it was reported to the Richmond magistrates that there had been no further slaughter of deer in Richmond Park, and that the district was free from contagious disease. There is every indication that the epidemic of rabies among the deer is now being fast stamped out. The number of animals killed is estimated at nearly 200.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AT an ordinary meeting of the Council held on Thursday, June 9th, the Minutes of the Library Committee on the 18th ult., as the report from that committee, were read; and it was agreed that, as recommended by the Library Committee, the vacant librarianship be filled up by the appointment of a librarian specially educated for such office, and that the vacancy in the office be advertised, and candidates invited to send in their applications by a given date; also that the salary of the librarian be £400 per annum, to be increased, after one year of service, to £500 per annum, provided the person appointed shall perform his duties to the satisfaction of the Council.

The third report, dated the 2nd inst., from the Committee on the Extension of the College Premises, relating to an addition to the building of the library and the appointment of a pathological curator, was read, approved, and adopted, subject to further consideration and discussion at the extraordinary meeting of the Council, which is to be held on Monday, June 27th (when the motion as to the disposal of the Erasmus Wilson bequest comes on for consideration).

A letter from Mr. Lund, resigning his position as member of the Court of Examiners was received, and his resignation accepted, with an expression of great regret at the illness which was the cause of it. The election of examiner to fill the vacancy will take place at the Council meeting on June 27th.

A letter, dated the 6th inst., from Mr. John Marshall, reporting, as the representative of the College, the proceedings of the General Medical Council during their late session, was read, received, and entered on the Minutes, and the best thanks of the Council were given to Mr. Marshall for his services as the representative of the College on the General Medical Council.

The following gentlemen were nominated for election in July as professors and lecturers to the College: Messrs. Bryant, Hulke, Stewart, Warner, Lockwood, Jessop, E. Nettleship, Marcus Gunn, Sutton, J. Priestley Smith, W. Arbuthnot Lane, and W. Watson Cheyne.

The President stated to the Council that he had received from Mr. J. Talfourd Jones of Brecon a portrait of Jenner, which he offered to the acceptance of the College. This was accepted, with the best thanks of the Council to Mr. Talfourd Jones for the same.

A letter of the 14th ult., from Mr. James Bankart of Exeter, a Fellow of the College, was read, enclosing a memorial to the Council on the subject of the new regulations of the Examining Board in England, and their influence on sutdents at provincial hospitals. This was referred to the Committee of Management to report to the two Colleges.

Three further memorials forwarded by Mr. Benjamin Bryan, and received on the 2nd inst., in opposition to the proposals contained in the memorial forwarded by Dr. Wilks relating to the disposal of the Erasmus Wilson Fund, were acknowledged.

A motion by Mr. Macnamara, "that it be referred to the President and Vice-Presidents to consider and report to the Council as to the propriety of rearranging the lectures annually delivered in the College, and of making them more serviceable to the profession," was agreed to.

Mr. Hutchinson gave notice of the following motion:—"To arrange for the delivery, by members of the Council or others, of special lectures, expository of the pathological preparations in the museum of the College."

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following Members, having passed the Final Examination for the Fellowship on the 25th, 26th, and 27th ult., were, at a meeting of the Council held on Thursday last, duly admitted Fellows of the College:—

Carr, J. W., M.B. Lond., Bloomsbury-square; diploma of Membership dated Oct. 24th, 1884.
Hadley, Wilfred J., L.S.A., Cavendish-rd., Clapham; Nov. 16th, 1883.
Hare, Evan Herring, L.S.A., Mortlake-road, Kew; August 2nd, 1876.
Hatch, W. Keith, M.B. Aberd., Pall Mall; August 3rd, 1876.
Heatherley, Francis, Newman-street; January 28th, 1885.
Hewkley, F., L.S.A., Cazenove-rd., Stoke Newington; Nov. 21st, 1881.
Hughes, Edgar Alfred, Onslow-gardens; January 24th, 1884.

James, David Philip, L.R.C.P. Lond., Tenby, South Wales; Nov. 16th, 1871.
Lawrence, Laurie Asher, L.S.A., Mansfield-gardens; Jan. 22nd, 1884.
Lund, H., M.B. Cantab., Whalley Range, Manchester; July 30th, 1885.
Richmond, C. B., L.S.A., The Infirmary, Warrington; Jan. 28th, 1876.
Robinson, H. Betham, M.B. Lond., York-crescent, Lower Norwood, July 20th, 1883.
Spencer, Walter G., M.B. Lond., St. Barthol. Hosp.; Aug. 3rd, 1885.
Tubby, A. H., L.R.C.P. Lond., Studley-rd., Clapham; July 29th, 1884.

Four other candidates passed the examination, but being under the legal age (twenty-five), the grant of their diplomas was postponed. Thirteen candidates failed to reach the required standard, five of whom were referred for six months and eight for one year.

At the same meeting the following Member, who passed the Final Examination in May, 1885, was also admitted a Fellow:—

Braddon, W. Leonard, Upton-on-Severn; diploma of Membership, dated April 23rd, 1884.

The following gentlemen, having passed the necessary examinations for the diploma, were at a meeting of the Council on the 9th inst. admitted Members of the College:—

Cockerton, Herbert, Cambridge Lodge, Lower Tooting.
Dean, Henry Percy, Dromore, Anson-road, Tufnell-park.
De Renzi, A. Castriot, Chaplain's House, H.M. Prison, Wandsworth.
Harris, Worsley John, Bennett-park, Blackheath.
Johnson, Harold Josse, Bishopsgate-street.
Kirkpatrick, Randolph Fernhill, Bolingbroke-road.
Westbrook, Richard Talbot, Guy's Hospital.
Whicher, Alexander Hastings, Westcombe-park.
White, Charles Percival, Furnival's-inn.

SOCIETY OF APOTHECARIES.—The following gentlemen, having satisfied the Court of Examiners as to their knowledge of the Science and Practice of Medicine, Surgery, and Midwifery, received certificates entitling them to practise as Licentiates of the Society on June 2nd:—

Cotes, Digby Francis Baynes, Purton, Swindon, Wilts.
Morris, Edward Walter, Southern-hill, Reading.
Peachey, George Charles, Albany-street, Regent's-park.
White, Thomas Dawe, Wallerton-road, W.

On the same day the following gentlemen passed the Primary Examination:—

Atkins, Sidney Ernest, St. Bartholomew's Hospital.
Best, William Jenner, London Hospital.
Jessop, Arthur Rowland, Guy's Hospital.

The examination in Arts of the Society of Apothecaries was held in the hall of the Society on the 3rd and 4th inst., when there were 201 candidates. The class lists will be published, it is understood, early next week. The third examination in Arts of the Society of Apothecaries for this year will be held on the 2nd and 3rd days of September next, and the fourth examination in Arts is fixed for the 2nd and 3rd days of December next.

THE Jubilee Extension Fund in connexion with the Aberdeen Royal Infirmary amounts now to upwards of £22,924.

ÆSCULAPIAN SOCIETY.—The annual dinner of this Society took place on Friday, June 3rd, in the Holborn Restaurant. The meeting was a very successful one.

VACCINATION GRANT.—Mr. William Rowlands, of the Sephton District of the West Derby Union, has been awarded the Government grant for successful vaccination.

MR. J. O'DONOVAN, F.R.C.S.I., of Mount Haigh, Kingstown, has been placed on the Commission of the Peace for co. Dublin.

ROYAL SOCIETY.—The second *soirée* of the season, that to which ladies are admitted, was held on Wednesday at Burlington House. There was a large and distinguished company present.

ON the 2nd inst. an athletic festival, in aid of the building fund of the Great Northern Central Hospital, was held at Tufnell Park, its organisers being the police of the Y Division and tradesmen of the district.

CREMATION.—The Geneva Town Council is agitating for the institution of a crematory furnace for the Canton, on the scale of that so successfully worked at Milan. M. Empeyta, the chief mover in the matter, has put forth a defence of the practice against common objections. Mineral poisons, he maintains, are as easily detectable after cremation as after burial, while premature cremation is avoided at Milan by sending the corpse to the *ustrinum* not sooner than eight days after death.

HOSPITAL SATURDAY.—The street collection on behalf of the London hospitals takes place to-day (Saturday).

AN Oriental bazaar in aid of the funds for building a wing for the accommodation of out-patients at the East London Hospital for Children at Shadwell was opened on the 2nd inst. at the Westminster Town Hall by the Duchess of St. Albans.

SANITARY INSTITUTE OF GREAT BRITAIN.—At an examination, held on June 2nd and 3rd, seventy-seven candidates presented themselves—nine as local surveyors and sixty-eight as inspectors of nuisances. Of the former class four satisfied the examiners, of the latter class forty-four were approved.

THE epidemic of measles at Grantham, which has now reached the workhouse children, is supposed to have been brought into the town by travelling hawkers who attended the recent fair. The Town Council are discussing the advisability of inspecting the vans of these persons before again allowing them access to the town.

CONSULTATIVE RELATIONS BETWEEN HOSPITALS AND PROVIDENT DISPENSARIES. — The Medical Attendance Organisation Committee has appointed a sub-committee to consider a plan for bringing "hospitals and provident dispensaries into consultative relations." The sub-committee consists of Sir T. Spencer Wells, Bart., Dr. F. H. Alderson, Mr. W. G. Dickenson, Dr. J. Grey Glover, Dr. W. M. Ord, Dr. Gilbart Smith, Dr. J. C. Steele, Dr. Walter Smith, Dr. W. E. Steavenson, Mr. W. Bousfield, and Lieut.-Col. Montefiore.

THE WATER SUPPLY OF THE CITY.—At the last meeting of the City Commission of Sewers, a report of the Streets Committee, recommending that a tender of £1750 be accepted for constructing an artesian well at the artisans' dwellings in the City, was adopted. The work, it will be remembered, is being projected by way of an experiment to ascertain whether pure water can be cheaply supplied to the City independently of the water companies, whose charges have been the subject of complaint.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—At a meeting of the Fellows on Monday last, the following office-bearers were elected for the ensuing year:—President: Anthony H. Corley. Vice-President: Henry Fitzgibbon. Secretary: William Colles. Council: G. F. Kidd, William Colles, Sir Charles Cameron, Edward Hamilton, Robert McDonnell, Sir William Stokes, William J. Wheeler, Sir George Porter, J. Kellock Barton, E. H. Bennett, Philip Crampton Smyly, W. Stoker, Rawdon Macnamara, A. Meldon, William Elliott, William Carte, Samuel Chaplin, William Frazer, and Kendal Franks.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.—The general meeting of the members of this Society was held on the 20th ult., when the fourteenth annual report was read and adopted. During the past year nine meetings, with an average attendance of forty-five, have been held, twenty-one new members have been elected, twelve have resigned, and the Society now numbers 214 members. The library has been considerably increased, and three additional microscopes have been purchased. The financial report was satisfactory. The following were elected office-bearers for the ensuing year:—President, Mr. Edward Atkinson; Vice-Presidents, Dr. Cameron and Mr. McGill; Treasurer, Dr. Clifford Allbutt; Hon. Secs., Dr. Jacob and Mr. Edward Ward; Librarian, Dr. Barrs; and Auditor, Dr. Braithwaite.

THE INTERNATIONAL CONGRESS ON ALCOHOLISM.—At Antwerp, which in 1885 was the scene of the last Congress on this great question of public health, it was arranged that the next should be held this year at Zurich on Sept. 9th and 10th. The permanent committee are organising for the occasion an exposition of everything bearing on alcoholism. For example: tables and diagrams of different countries indicating the consumption of alcohol per head of the population; the proportion of persons annually undergoing imprisonment per 100,000 of the inhabitants; the annual proportion of suicides and of lunatics; the annual outlay on alcoholic drinks compared with that incurred for articles of prime necessity; plans of asylums for inebriates; specimens of non-intoxicating beverages; and comparative regulations of the various temperance societies, with statistics of their working.

IN honour of Her Majesty's Jubilee, it has been decided by the promotors that the procession annually organised in the East-end of London on Hospital Saturday shall this year be conducted on a more extensive scale than usual.

EXHIBITION AT WIESBADEN.—A scientific exhibition will be connected with the 60th Congress of German Naturalists and Physicians to be held in Wiesbaden from the 15th to the 24th of September. It will be strictly scientific, not mercantile, and its purpose will be to show at a glance the latest and most perfected instruments and apparatus which have been placed at the disposal of science and medicine in the last few years. The following groups will form part of it:—Surgery, physical diagnosis and therapeutics; ophthalmology, gynæcology; laryngology, rhinology, and otology; orthopædics, dentistry, chemistry, instruments of precision, with subdivision for microscopy; instruments and apparatus aiding instruction in natural history, geography, equipment for scientific travel, photography, anthropology, biology and physiology, hygiene, electro-therapeutics and neurology, and pharmacology.

MEDICAL NOTES IN PARLIAMENT.

Pure Beer.

IN the House of Commons on the 7th inst., in reply to Mr. BONSOR, the Chancellor of the Exchequer stated that since the deputation eighteen samples of beer, purchased of various publicans chosen by the hon. member for Suffolk (Sudbury Division), had been carefully analysed at the laboratory at Somerset House, and he was able to inform the House that in no single case had any adulteration, noxious or otherwise, been detected, but, on the contrary, the beers were genuine and of high alcoholic strength. This statement fully corroborated the correctness of the view maintained by the Board of Inland Revenue.—Mr. QUILTER asked whether the right hon. gentleman could inform the House if the samples analysed had been obtained by the officers of excise of the district, who would be presumably well known to the publicans, or were purchased over the bar by some of the public in the ordinary course of business.—The Chancellor of the Exchequer understoood that the samples had been arranged for by the hon. member himself.—Mr. BONSOR wished to state that he had nothing to do with procuring the samples, except to indicate the localities. He believed that they were procured through the officers of excise.—The Chancellor of the Exchequer said that, if the hon. member wished it, further inquiry should be made.—Mr. QUILTER hoped that the right hon. gentleman would ascertain whether or not these samples were obtained by the officers of excise.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

FAULKNER, W. COOKE, M.B., C.M.Ed., has been elected Medical Officer to the Second District of the Eastbourne Union.

GELSTON, JOHN S., L.K.Q.C.P.I., L.R.C.S.I., has been appointed Medical Officer for the Sapiston District of the Thetford Union.

GODFREY, GRAHAM P., L.R.C.S., L.R.C.P.Ed., has been appointed Assistant Medical Officer for the Workhouse of the Sheffield Union.

HARRISON, WALTER, D.M.D. Univ. Harv., L.D.S. Roy. Col. Surg. Eng., has been appointed Honorary Dental Surgeon to the Throat and Ear Dispensary, Brighton, vice W. Lloyd Poundall, resigned.

HOWARD, WILFRED, M.R.C.S., L.R.C.P. Ed., has been appointed Medical Officer for the Third District of the Depwade Union.

HUGHES, EDGAR A., M.R.C.S., L.R.C.P.Lond., has been appointed Registrar and Chloroformist to the Evelina Hospital for Sick Children, Southwark-bridge-road, S.E., vice G. A. Carpenter, resigned.

KERR, DANIEL O., M.B., C.M.Ed., has been appointed Medical Officer for the Keelby District of the Caistor Union.

KNAGGS, FRANCIS H., M.R.C.S., L.R.C.P., has been appointed Surgeon to the Gloucester General Infirmary and Gloucestershire Eye Institution, vice Anthony J. Bathe, M.R.C.S., L.R.C.P., L.S.A., resigned.

NEECH, JAS. THOMAS, L.R.C.P.Ed., L.F.P.S.Glas., L.M., has been appointed Surgeon to the Oswestry Dispensary.

POWER, D'ARCY, M.A., M.B.Oxon., F.R.C.S. Eng., has been elected Assistant Surgeon to the Victoria Hospital for Children, Queen's-road, Chelsea.

THOMAS, FREDERICK, M.R.C.S., L.R.C.P. Lond., has been appointed Medical Officer for the Upper Ystradyfodwg District of the Pontypridd Union.

THOMAS, G. H. WARREN, L.R.C.P.Lond., M.R.C.S., has been appointed Medical Officer and Public Vaccinator to the Teignmouth District, Newton Abbot Union, vice Robert Gibbs, M.R.C.S., L.S.A., resigned.

TURNER, ALFRED, M.B., C.M.Ed., has been appointed Assistant Medical Officer to the Dorset County Asylum.

Vacancies.

In compliance with the desire of numerous subscribers, it has been decided to resume the publication under this head of brief particulars of the various Vacancies which are announced in our advertising columns. For further information regarding each vacancy reference should be made to the advertisement.

BIGGLESWADE UNION, Bedford.—District Medical Officer. Salary £130, with extra medical fees, as allowed by the Local Government Board.—Medical Officer for the Union Workhouse and Infirmary. Salary £40 a year.—Medical Officer for the Contagious Diseases Hospital. Salary £40 a year.

BIRMINGHAM GENERAL HOSPITAL.—Assistant House-Surgeon. Residence, board, and washing will be provided, but no salary.

CLINICAL HOSPITAL FOR WOMEN AND CHILDREN, Park-place, Manchester.—House-Surgeon. Salary £80 per annum, with apartments and board.

DURHAM COUNTY HOSPITAL.—House-Surgeon. Salary £100 a year, with board and lodging.

HOSPITAL FOR WOMEN, Soho-square, W.—House-Physician. Salary £75 per annum, with board &c.

LIVERPOOL DISPENSARIES.—Assistant Surgeon. Salary £80 per annum, with apartments, board, and attendance.

LIVERPOOL ROYAL SOUTHERN HOSPITAL.—Ambulance Surgeon. Board, lodging, and washing provided, but no salary.

MANCHESTER HOSPITAL FOR CONSUMPTION AND DISEASES OF THE THROAT.—Honorary Assistant Physician.

MIDHURST UNION, Sussex.—Two Medical Officers. Salaries £65 and £45 per annum, with extra medical and vaccination fees.

PADDINGTON PROVIDENT DISPENSARY, near Edgware-road, W.—Medical Officer. Usual gratuity £50 a year.

PRISON COMMISSIONERS FOR SCOTLAND.—Resident Surgeon. Salary £200, with an increment of £50 after five years, and a further increment of £50 after ten years, to a maximum of £300, with residence, or allowance in lieu, and medicines.

QUEEN'S HOSPITAL, Birmingham.—Honorary Surgeon.

ST. PANCRAS AND NORTHERN DISPENSARY, Euston-road.—Resident Medical Officer. Salary £105, with residence.—Honorary Physician.

TOWNSHIP OF TOXTETH-PARK, Liverpool.—Assistant Medical Officer for the Workhouse and Infirmary. Salary £100 per annum, with rations of a first-class officer and separate apartments.

UNIVERSITY COLLEGE, London.—Professor of Medicine.

Births, Marriages, and Deaths.

BIRTHS.

BARTON.—On the 1st inst., at Scarle Lodge, Market Rasen, the wife of B. Barton, M.D., of a son.

MORTON.—On the 1st inst., at Wellesley-villas, Croydon, the wife of Shadforth Morton, M.D., of a son.

PIGGOTT.—On the 6th inst., at Teignmouth, South Devon, the wife of F. Cecil H. Piggott, B.A., M.B., B.C. Cantab., M.R.C.S., L.S.A., of a daughter.

RAW.—On the 28th ult., at Rutland House, Oakfield-road, Anerley, S.E., the wife of William E. St. M. Raw, L.R.C.P., M.R.C.S., L.S.A., of a daughter.

MARRIAGES.

ALLWRIGHT—LUNNON.—On the 1st inst., at St. Nicholas', Hedsor, Bucks, Frederick William Allwright, M.D., to Dorothy Mary (Dora), only daughter of the late Thomas Lunnon, Esq., of Bourne Bank, Bourne end, Bucks.

GRIMSDALE—JEVONS.—On the 2nd inst., at the Ancient Chapel of Toxteth-park, Liverpool, Thomas B. Grimsdale, M.B., to Helen, daughter of Henry Jevons, J.P., of Liverpool.

HOLT—COOPER.—On the 4th inst., at St. James's, Clapham, H. Lyttleton Holt, M.R.C.S., L.R.C.P.Ed., to Caroline Emily Cooper, elder daughter of William Cooper, of Clapham.

MOIR—BONAMY.—On the 8th inst., at St. John's the Evangelist, W.C., Byres Moir, M.B., to Evelyn, daughter of the late Lieut.-Col. J. Collings Bonamy, of Guernsey.

TOLLER—MACKAY.—On the 1st inst., at Langton-by-Wragby, Lincolnshire, Charles William Edward Toller, M.R.C.S., L.R.C.P., to Florence Heaton, second daughter of the Rev. Sween MacDonald Mackay, M.A., Vicar of Langton.

WILES—MCGACHEN.—On the 1st inst., at St. Martin's Church, Penny Stratford, Bucks, by the Rev. A. H. MacGachen, brother of the bride, assisted by the Rev. A. H. Barrow, Vicar of the Parish, Frederick William, youngest son of the late William Wiles, of Wotton-under-Edge, Gloucestershire, to Sophia Euphemia Auld, younger daughter of the late Rev. J. D. McGachen, Vicar of St. Bartholomew's, Bethnal-green.

WRIGHT—GWYNN.—On the 1st inst., at Emmanuel Church, Clifton, John Frederick Wright, M.R.C.S., to Ethel Gwendoline, third daughter of the late John Crowther Gwynn, of Clifton, Solicitor.

DEATH.

OLIVER.—On the 7th inst., Samuel Oliver, M.R.C.S., L.R.C.P.Ed., of Buckingham Palace-road, and Enfield, Paignton, South Devon, in his 53rd year.

N.B.—*A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.*

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, June 9th, 1887.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp.	Rain fall.	Remarks at 8.30 A.M.
June 3	29·63	N.E.	56	55	...	57	51	·43	Overcast
,, 4	29·95	W.	55	52	107	71	49	·73	Cloudy
,, 5	30·05	S.W.	64	60	106	72	53	...	Hazy
,, 6	30·13	W.	60	57	102	69	55	...	Hazy
,, 7	30·06	S.W.	63	58	95	71	55	...	Cloudy
,, 8	30·12	S.W.	62	59	116	76	58	...	Cloudy
,, 9	30·09	W.	60	55	...	...	52	·05	Fine

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication

We cannot prescribe or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

PHYSICIANS IN ANCIENT ROME.

R. C. L. (Newcastle-on-Tyne).—The status of the profession in Ancient Rome was first recognised by Caius Julius Cæsar when he came to wield absolute power. "Omnes medicinam Romæ professos," says Suetonius, "et liberalium artium doctores, quo libentius et ipsi urbem incolerent et ceteri adpeterent, civitate donavit. (He vouchsafed the right of citizenship to all who in Rome professed the healing art, and who gave lessons in liberal education, in order that they themselves might the more willingly settle in the City, and that others similarly qualified might repair to it.)

Dr. L. Marshall.—We fear the communication is too lengthy for publication.

Mr. Kendrick.—The specimen is under examination.

"SWEATING OF THE FEET."

To the Editors of THE LANCET.

SIRS,—To cure the moisture of the feet every effort should be made to secure rapid evaporation. From personal experience this end, I find, can best be obtained by the use of sanitary clothing, porous throughout and made exclusively of animal material, which is a non-conductor of heat or electricity. So far as the feet are concerned, the sock or stocking is made of pure animal wool, free from all dyes or colouring material. The separate division given for each toe, as for a glove, keeps the foot cool by preventing the accumulation of sweat. We should soon suffer with our hands if gloves were made of one piece, holding the fingers tightly together, as the toes in a boot. The true sanitary boot should be made of woollen cloth or very porous leather with cloth uppers. It is lined with pure woollen lining. There is a hole in the upper part of the heel, and the inner soles or layers of leather are perforated. Each step is supposed to pump air in and out of the boot. However this may be, the fact in any case remains that the foot is kept at once warm and yet cool. There is no sense of stuffiness or closeness. The foot does not swell. Whatever moisture arises at once evaporates. The foot therefore remains dry and warm, but is never over-heated and offensive. The bad odours that vegetable lining and socks—cotton socks, to wit—retain are thrown off by nature's clothing—i.e., animal wool. This is a fact I have particularly noticed when travelling in hot countries. My cotton socks soon became obnoxious, even when constantly changed, though my feet were in a healthy state; but now that I wear sanitary boots I never suffer any inconvenience. My woollen socks keep my feet pleasantly cool and dry and free from all odour. But it is no use wearing woollen socks with a boot that has cotton or linen lining. The foot must be covered throughout with porous animal material.

I am, Sirs, yours faithfully,

June, 1887. ADOLPHE SMITH.

"WINTER PALACES OF HEALTH AT HOME."

REFERRING to Dr. B. W. Richardson's suggestion, as noticed in our issue of May 28th, *Mr. Richmond Leigh* writes:—"In the Crystal Palace we have a spacious winter-garden, in which suites of rooms for invalids and delicate-chested individuals could be put up at a reasonable outlay and let at a fairly moderate charge. The Palace also possesses the great advantage of a large and varied selection of amusements, besides schools of art, &c., to occupy the minds of the residents and prevent *ennui*. It is conveniently near to London, whence, it may be presumed, it would draw its largest contingent of patrons, and would also allow friends residing in the metropolis to visit the invalids frequently. The locality is of little import under glass. The contained vegetation, another advantage already in action at the Palace, would preserve the purity of the air, and little ventilation would be required, while dampness need not be apprehended. The luxuriant growth of the bananas and palms in the Crystal Palace is the test of its climate, and the proof of its suitability to phthisical and other invalids."

M.B.—1. If A entirely ignores the work of his Poor-law appointment, he is decidedly infringing the regulations of the Local Government Board; and in regard to his vaccination appointment the same rule holds good with greater force.—2. We should recommend "M.B." to live within his district, and leave others to report to the Central Board his opponent's non-compliance with their regulations.

Boston.—The Morton lectures will be delivered by Sir James Paget at the Royal College of Surgeons of England. The date has yet to be announced.

M.R.C.S.—Scarification with a very cold scalpel, the skin being frozen, has been successful (see THE LANCET, March 23rd, 1878, p. 421).

THE NEW MEDICAL ACT AND STUDENTS.

To the Editors of THE LANCET.

SIRS,—I should be very grateful if you would insert this letter in your next issue, as, if the Councils of the Colleges of Surgeons and Physicians would make the concession I plead for, many students would benefit by it. The student who registered on Oct. 1st, 1883, is seriously affected by the New Medical Act, as he began his studies thinking that he could take either the diploma of M.R.C.S. or L.R.C.P.L., and register it alone; and being thirteen days short of forty-five months he is unable to present himself at forthcoming examinations, kindly held by both Colleges in order that many of those who entered, thinking they were entitled to register and practise with either one degree, may have an opportunity of presenting themselves with a view to doing so. As he is now obliged to take both, I would plead that he may be allowed to present himself for examination at whichever College he was preparing for two years after passing first subject of primary, instead of two years from completing it, and for the following reasons:—First, if a student passed in anatomy, and was referred for six months in physiology, no one would, I think, suggest that he could read that subject alone during the whole period; and what he really does is to attend various out-patient departments and the post-mortem room, and read up the referred subject in early morning and evening. Secondly, it is not usual for a student to present himself at both Colleges for the finals held in the same month, so that two years would have been spent probably in hospital practice, from the time of completing the primary, before he had obtained both diplomas; and even if that were made a condition, it would be a great boon to many students. At the time of passing the first part of the primary he would then make up his mind which he intended to go in for first, and give greater attention to it for two years from then, afterwards spending the remainder of the time from the passing of the last part of the primary till two years had expired, preparing for examination in the remaining subject or subjects.

I am, Sirs, yours obediently,

May 31st, 1887. A STUDENT.

Mr. W. Longbottom.—Dr. Kollscher has not, we believe, completed his investigations on the subject. We shall probably be in a position to publish further particulars shortly.

Mr. G. W. E. Russell will see, by reference to an annotation in another column, that the subject of our correspondent's letter is engaging attention.

INCISING THE TONSILS.

To the Editors of THE LANCET.

SIRS,—I attended lately a woman who was suffering from tonsillitis, there being even more than the usual tumefaction. Upon visiting her one day in the course of the disease I was anxious to incise the tonsil at once, and not having a bistoury with me at the time I did so with an ordinary blunt-pointed dressing scissors, and with the best results. It struck me upon thinking over the matter afterwards that perhaps it would be better to use a blunt-pointed scissors in every similar case. The danger of wounding an artery is altogether obviated, there is no difficulty whatever in getting a good grip with the scissors upon the swollen tonsil, and the preliminary preparation of a bistoury with lint, which is wrapped round it, is avoided. I admit that there is very little danger of wounding an artery with a bistoury used in the customary way; still it is better to have no danger at all than a little.—Yours respectfully,

Deptford, S.E., May 26th, 1887. R. B. GOSSUCH.

LANGMORE DEFENCE FUND.

A SUM a little more than £70 is still required to defray the heavy bill of costs for legal defence incurred by Dr. J. Wreford Langmore in the recent groundless action brought against him in consequence of his having signed a lunacy certificate, in compliance with a magistrate's order. The committee desire to close the fund, and will thank all gentlemen wishing to subscribe to send their donations at once to Mr. George Bastes, M.B., 69, Connaught-street, Hyde Park-square, London, W., the honorary secretary to the fund. The donations already acknowledged amount to £151 4s. Those received during the last three weeks are the following:—

"A Friend in the Fells" ...	£2	2	0	Mr. R. J. Godlee	£1	1	0
Proprietors of THE LANCET	2	2	0	Mr. T. A. Rogers	1	1	0
Mr. John Morgan	2	2	0	Dr. John Williams	1	1	0
Dr. J. Russell Reynolds ...	2	2	0	Mr. R. P. Young	0	10	6
Dr. J. F. P. Staples	2	2	0	Dr. Maurice Davis	0	10	0
Dr. A. B. Garrod	1	1	0	Dr. J. C. Thorowgood ...	0	5	0

"TREATMENT OF TÆNIA SOLIUM."

To the Editors of THE LANCET.

SIRS,—Being an old resident in South Africa, I can fully confirm the assertion of your correspondent, Dr. Fred. A. A. Smith, as to the frequency of worms among the natives—so much so that you will seldom see a Kaffir's necklace without some pieces of root among the charms, some probably of the male fern, as they know of that remedy. I have a piece of root still in my possession which was given to me by a Kaffir man, and of which I wrote at the time from his dictation: "The root umfisé, or umfézé. The flower they call 'eenjiganjyambo.' A most valuable medicine. The plant (I understand) attains no more than six inches in height." To this is appended the man's directions for use in the case of worms. Does Dr. Smith know the colonial remedy for worms often used among the Boers—the inner bark of the root of the pomegranate? The rind of the fruit is used by them in dysentery.

I am, Sirs, yours faithfully,

Doughty-street, W.C., June, 1887. M. CAREY-HOBSON.

FOUNDLINGS IN ITALY.

DR. B. RASERI, of the Italian Bureau of Statistics, has recently issued a valuable report on the subject of illegitimate births and foundlings in Italy. Of 187,555 illegitimate children born in the 8260 communes of the kingdom of Italy during the three years 1879, 1880, and 1881, 122,782 were recognised by one or both of their parents, while the remainder, 64,773, were brought to the civil offices, each by a stranger (midwife, accoucheur, &c.), with the declaration that the mother did not wish to declare the proper name of the child. In the years in question (1879–81) the infants found exposed were 40,296 alive, and 600 dead. Of these 32,093 were found in the turning boxes intended for their reception, 541 of them dead, and 8823 were found on the public roads, under staircases, in churches, &c., 79 of these being dead when found. Out of a total of 227,851 illegitimate children and foundlings in all Italy during the three years 1879–81 public charity took charge of only 106,461, the greater number recognised by their parents, having been provided for by them, or having died before the communes concerned had time to take measures in their behalf.

Scot.—Is our correspondent quite sure of the accuracy of his diagnosis? Iodide of potassium might be tried.

THE L.S.A. AS A DOUBLE QUALIFICATION.

To the Editors of THE LANCET.

SIRS,—According to the decision of the General Medical Council the licence of the Apothecaries' Society, London, will be a licence to practise surgery, as well as medicine, after July 1st, 1887. Should not those men who have already passed the examination in surgery (conducted by the same examiners—Messrs. Makins, Walsham, and Andrew Clark—as were recently appointed by the General Medical Council) be also recognised by the General Medical Council as possessing a licence to practise surgery? I am, Sirs, your obedient servant,

June, 1887. L.R.C.P.

*** The question asked by our correspondent is a very reasonable one. Unfortunately, law and reason do not always coincide, and there may be a difficulty in the Society acting on any examination retrospectively. We commend the letter, however, to the consideration of the Society.—ED. L.

Enquirens should refer to a letter which appeared in our issue of Dec. 6th, 1884, p. 1030.

TO PASTURES NEW.

To the Editors of THE LANCET.

SIRS,—I am a physician, &c., with indifferent health and a small private income (about £120 a year). I am anxious to emigrate, but do not know where to go. Perhaps some of your readers would kindly give me some hints on the subject. I am a bachelor, and fond of country life and sport. Any good climate, with a chance of £100 a year, would suit me; and for information I should be very grateful.

I am, Sirs, yours faithfully,

June 4th, 1887. EMIGRANT.

MUSHROOMS: THEIR NUTRITIVE VALUE.

THE Vienna school has been investigating this subject, and has arrived at conclusions of importance for all countries where, like Austria, the edible fungi are a common food. The traditional view has been that mushrooms are equal in nutritive value to butcher's meat, and physiologists, like Lorinser in his work on "The More Important Fungi" (Vienna, 1883), have urged, in the interests of the poor, the more frequent use of an aliment so easily procurable and so sustaining. Dr. Stromer of Vienna has, however, after repeated and carefully checked investigations, reached the following results:—1. The fresh mushroom differs widely from the dry mushroom, the former containing 90 per cent. of water and only from 2 to 3 per cent. of albumen, while the latter contains 23 per cent. of albumen. Moreover, the different parts of the mushroom contain more or less albumen, the "hat," for instance, having twice as much as the stem. 2. The fresh mushroom contains 2·5 per cent. of carbon hydrates, while the dry contains 24·5 per cent. of them. Experiments conducted on Stutzer's method give the following results as to the digestibility of mushrooms:—Out of 4·7 per cent. albumen in the *boletus edulis* there was digested 79 per cent., of 5·6 per cent. albumen contained in the "hat" there was digested 80 per cent., while of 2·7 per cent. albumen contained in the stem there was digested 75 per cent. Compared with other aliments this means difficult digestion. Black Vienna bread contains 1·2 per cent. albumen, and of this, in the same time, 86 per cent. was digested; bean-meal contains 3·6 per cent. albumen, and of this, also in the same time, 94 per cent. was digested; pease-meal, with 3·9 per cent. albumen yielded 95·6 per cent. to digestion, raw ham 96 per cent., and grated butcher's meat as much as 99·25 per cent. Results, the same to a fraction, were reached by Saltel of Amsterdam and Mörner of Upsal. Dr. Stromer concludes: 1. Mushrooms possess small nutritive value, their heavy charge of water reducing to very little their quantity of nutrient substances, and, above all, the albumen, which is difficult of digestion. 2. Dry mushrooms are not much better, because they absorb a great deal of water in cooking. 3. Mushrooms approximate in nutritive value to vegetables, particularly to cabbage, and, being cheap and easily procurable, deserve *pro tanto* the attention of the poor.

Mr. J. Peters.—As far as we can make out, the case is still *sub judice*; we therefore refrain from comment.

"SPECIALISM IN EXCELSIS."

To the Editors of THE LANCET.

SIRS,—In reference to your amusing paragraph with the above heading in a recent issue of THE LANCET, it may interest some of your readers to hear that the ancient Egyptians, although they may not have had an "Association of Genito-urinary Surgeons," appeared to have practised specialism *in excelsis*. For we learn, on the authority of Herodotus, that each single disease had its special physician (De Bello Persico, 2, 84). They, however, seemed to have drawn the line at the belly, which, with its contents and all below it, was given in charge of one man. I am, Sirs, yours obediently,

Brighton, June 5th, 1887. W. A. H.

THE VIENNA INTERNATIONAL CONGRESS OF HYGIENE.

G. A. P. (Birmingham).—In July next the working committee of this great gathering will be in a position to issue to all members a detailed programme, including the topics entered for discussion. It is still receiving numerous announcements of intending participants in its business, not merely from medical men, but from members of other more or less cognate professions. The programme will be found to include every subject bearing directly or indirectly on public health. The Dutch, the Swiss, and the Saxon Governments have each nominated their representatives. The exhibition of hygienic appliances will be unprecedentedly rich, thanks to the contributions already received or promised from the various European and Transatlantic States. All members of the Congress will be presented with a "Hygienic Guide to Vienna," having a plan of the city annexed, and indicating every object of sanitary interest within its gates. The Austrian railways are in treaty with the French and Belgian lines, as well as with the Trieste-Lloyd and the Danube Steam Navigation Company, to reduce their fares by 50 per cent. for all members of the Congress.

J. W. Black, F.R.C.S.—The subject is one of some delicacy; but we feel very strongly with our correspondent.

THE BROWN DEFENCE FUND.

To the Editors of THE LANCET.

SIRS,—Kindly insert the following:—Amount already acknowledged, £20 9s. 6d.; the Proprietors of THE LANCET, £3 2s.; A Fellow Sufferer, £1 1s.; small sums, 9s.

I remain, Sirs, yours faithfully,

G. STANLEY MURRAY, M.D.

23, Upper Richmond-road, Putney, June 7th, 1887.

COMMUNICATIONS, LETTERS, &c., have been received from—Sir Andrew Clark, London; Prof. T. R. Fraser, Edinburgh; Mr. J. R. Godlee, London; Mr. Lockwood, London; Dr. Gowers, London; Mr. Bland Sutton, London; Dr. Cullingworth, Manchester; Messrs. Maggs and Son, Yeovil; Major Cooper, London; Dr. Porter Smith, Shepton Mallet; Dr. Malins, Birmingham; Mr. Barrind, London; Mr. Arnold Evans, Wolverhampton; Mr. Alcan, Paris; M. de Fonville, Paris; Mr. Travers, Sutton; Mrs. C. Stone, Freshwater; Messrs. Boulton and Paul, Norwich; Dr. J. V. Shoemaker, Chicago; Messrs. Fletcher and Co., Holloway; Mrs. Adams, St. Leonards-on-Sea; Dr. Percy Boulton, London; Mr. T. D. C. Barry, Netley; Messrs. Maclachlan and Co., Edinburgh; Dr. J. R. Hamilton, Hawick; Messrs. Blake and Co., Leeds; Mr. Peters, London; Mr. Speed, London; Mr. Stanley Boyd; Mr. Dereuth, London; Mr. V. Richards, Goalundo; Mr. Mayo Robson, Leeds; Dr. Goodridge, Bath; Dr. R. Neale; Mr. Richmond Leigh, London; Lieut.-Col. Paris; Dr. T. J. Mays; Messrs. Arnold and Sons, London; Mr. J. M. Caw, Woolwich; Messrs. Hopkinson and Co., Nottingham; Mr. Henriques, Brighton; Mr. R. Bardley Wilmot; Dr. Jacobs, Leeds; Dr. Jas. Cameron; Mr. Mahoney, East Grinstead; Dr. Byers, Belfast; Mr. Rideal, London; Messrs. Maythorn and Son, Biggleswade; Mr. Longbottom, Sheffield; Messrs. Weiss and Son, London; Mr. Crookshank, Edinburgh; Messrs. Francis and Co., London; Mr. N. Dobson, Clifton; Dr. O'Connell, Calcutta; Mr. St. Dalmas, Leicester; Dr. Hilliard, Aylesbury; Mr. Lancaster, London; Mr. Russell, London; Mr. Gurner, London; Mr. Hodgson, London; Miss Fox, London; Mr. Cowan, Glasgow; Mr. Dewhurst, Lambeth; Mrs. Blore, Leeds; Dr. Laffan, Cashel; Mr. Martindale, London; Mr. Bergo, Oxford; Mr. Hatchett, London; Mr. Panduran, Bombay; Mr. Fuge, Taunton; Mr. Fox, Wellington; Mr. Hawkings, London; Mr. Silcocks, Bath; Mr. Fox, Birmingham; Dr. Stanley Murray, Putney; Dr. J. Farrar, Gainsborough; Messrs. Danielson and Co.; Dr. Wolfenden, London; Dr. Creighton; Messrs. Steele and Ellis, London; Dr. R. Barnes, London; Dr. J. W. Fraser; Dr. Carey Hobson, London; Dr. Caiger, Lindfield; Mr. Page, London; Mr. A. E. Barker, London; Rev. G. F. Prescott, London; Mr. Frankel, Clan William; Mr. Duntherne, London; Mr. J. M. Allender; Mr. Hayles, Evesham; Mr. Latimer, Swansea; Mr. Mills, Hanley; Mr. Cooper, Durham; Mr. Highmore, Liverpool; Dr. Cooke, London; Rev. A. Tooth, Croydon; Mr. Hunt, Manchester; Mr. Eastwood, Blackburn; Mr. Evans, Oswestry; Mr. Teague, Manchester; Mr. Symes, Dorchester; Mr. Stretton, Kidderminster; W. A. H.; M.R.C.S.; Scot; Inquirens; L.R.C.P., M.R.C.S.; H. V., Aylesbury; Philo Pilo; A Country Surgeon; L.R.C.P.; A General Practitioner; Ambulance.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Royle, Jersey; Mrs. Walmsley, Liverpool; Mr. Sacker, London; Mr. Pryce, Pontypridd; Mr. Hogg, London; Messrs. Grace, Bristol; Dr. Jones, Pontardawe; Mr. Mackinlay, Stockton-on-Tees; Messrs. Harrison and Brass, Elgin; Mr. Byerly, Portsea; Mrs. Brown, London; Mr. H. Sargent, London; Mr. Stephens, St. Austell; Mr. Huggins, Great Malvern; Mr. Thomson, Luton; Dr. Johnston, Sheffield; Dr. Piggott, Teignmouth; Mr. Davidson, Manchester; Messrs. Benjamin and Son, London; Mr. Legge, Aberystwith; Mr. Eastes; Mr. Effernan, Bootle; Mr. Johnson, Leicester; Mr. Gayley; Mr. Williams, Abertillery; Mr. Stenhouse, Glasgow; M., Manchester; Medicus, Stoke Newington; Physician, London; L., Leicester; Celsus; Statim, Newcastle; T. O., London; Locum, Everton; M.D., Pangbourne; Beta, Brockley; Beach; Natural Science; Doctor; M. A. C.; Unfortunate; R. V., Leeds; A. H., Woodley; Transfer, Hanley; L., Bristol; M., Ramsgate; Australian, Lurdan; W. S., Manchester; Aneroid; Lady Superintendent, Canterbury; Medicus, Lantford; M. N.; Epilepsy, Knightsbridge; X. X. X.; J. N. D.; G. B., Kentish-town; H. N. T.

Leamington Spa Courier, Melbourne Age, Carpentaria Times, Leamington Chronicle, Kentish Gazette, &c., have been received.

Medical Diary for the ensuing Week.

Monday, June 13.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M., and each day at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.

CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M; Thursday, 2.30.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.; Tuesday, 2.30 P.M.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITALS.—Operations, 2 P.M., and each day in the week at the same hour.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Prof. Christopher Heath: Certain Diseases of the Jaws—Diseases of the Temporo-Maxillary Articulation and Closure of the Jaws.

Tuesday, June 14.

GUY'S HOSPITAL.—Operations, 1.30 P.M. and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 1.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8.30 P.M. Mr. J. D. Malcolm: The Condition and Management of the Intestine, after Abdominal Section, considered in the light of Physiological Facts.—Dr. Radcliffe Crocker: Dermatitis Gangrenosa Infantum.—Mr. Hutchinson: On a form of Chronic Inflammation of the Lips and Mouth which sometimes ends fatally and is usually attended by some disease of the Skin.

Wednesday, June 15.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.

LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.

KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; Friday, 2 P.M.; Saturday, 1 P.M.

CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9 A.M.; Saturday, same hour.

Thursday, June 16.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Ophthalmic Operations, Friday, 1.30 P.M.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

Friday, June 17.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, June 18.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.

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